BRITAIN'S BEST-SELLING MAGAZINE FOR THE AMSTRAD


CPC


GX4000


PLUS

ISSUE No. 82
JULY 1992
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NOT an official Amstrad publication!

AMSTRAD ACTION

Amstrad reviews, tips, letters, help, info and fun than any other mag!



Britain's no. 1 CPC magazine!

We've gone GAMES MAD...!

LEMMINGS "completely insane"
THE ADDAMS FAMILY "utterly creepy"
BONANZA BROS "a bit metallic"

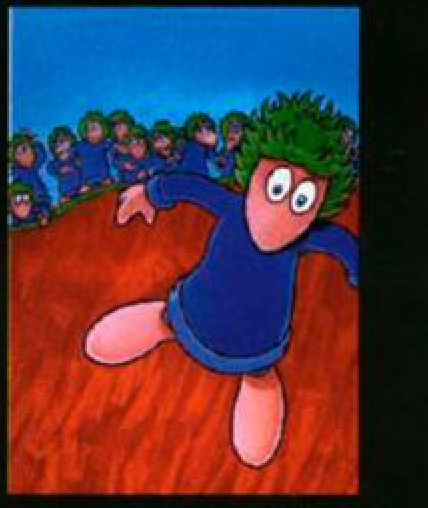
...BUT WE'RE STILL AS TECHIE BARMY AS EVER:

PROGRAMMING: becoming a pro
PAINTING: the best progs around
PUBLISHING: new DIY fanzine series starts this month

Has some robot burgled your covertape? Ask your newsagent immediately!

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ALSO ON DISK!
Want a disk version of the covertape? (6128 Plus owners take note) Check out the tape pages for details on how to order your copy.



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● **Reader calls:** Due to pressure of work, we can only accept 'phone calls from readers on Tuesday afternoons.

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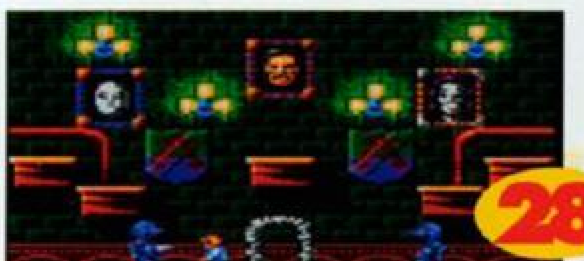
Line Up

Professional programming



Ever fancied the money, prestige, and glamour that professional games programmers enjoy? (Like heck!) Here's the *AA* guide to making a living from games...

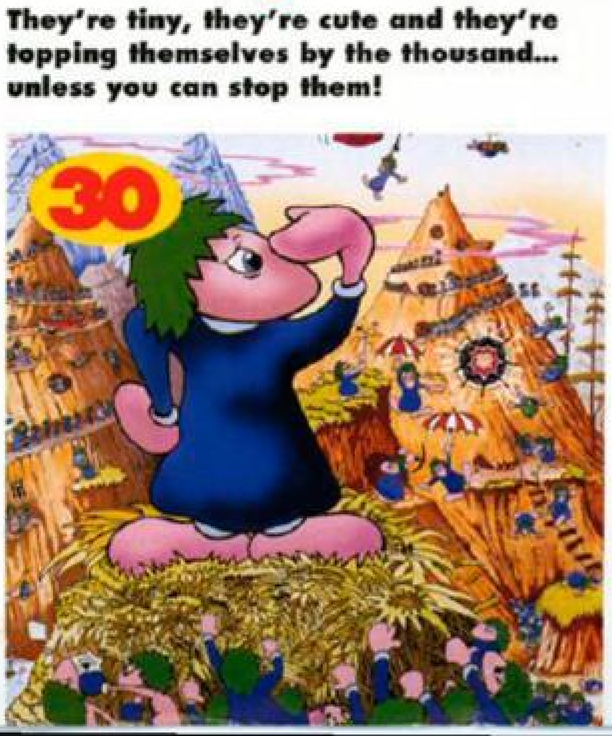
The Addams Family



Last month you played the demo, this month read the review! How can Ocean even *think* of abandoning the CPC when it can do games like this?

Lemmings

They're tiny, they're cute and they're topping themselves by the thousand... unless you can stop them!



Bonanza Bros

"Coo, everthing's automated now, isn't it Mrs Boggins?"
"Ooh, yes. Had my house burgled by a couple of robots the other day."
"I know, I know. And the buses never run on time either."



Hold the front page! 43



new series

Discover the ins and outs of producing your own magazine with Adam Peters' new series. This month: writing copy, word processing and how to plan your magazine's contents

the buyers guide Art packages



56

Your CPC is a powerful creative tool. There are several packages which let you compose, paint and edit your own pictures on-screen. We pick the best

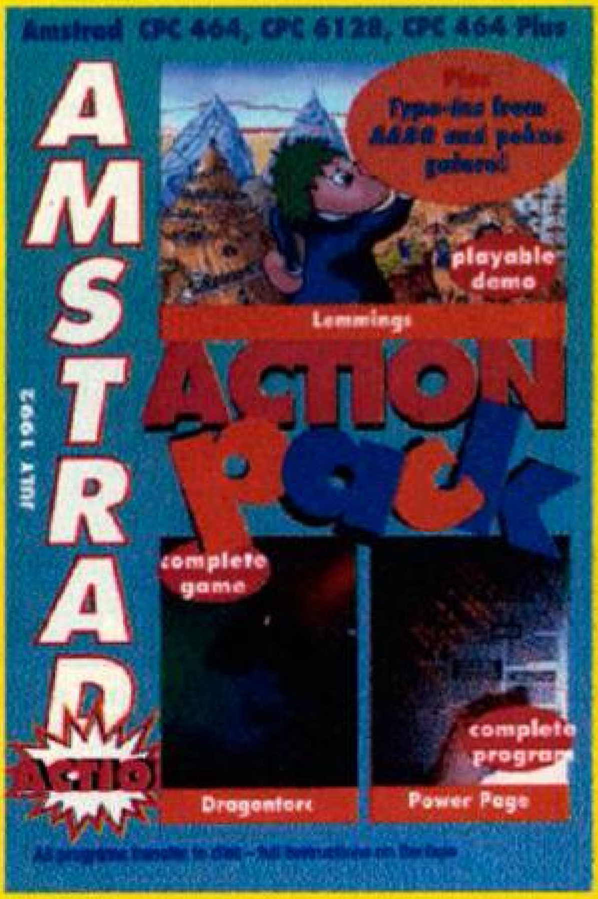
serious

games

regulars

15 covertape

ACTION pack



■ ***Lemmings demo*** **– four complete levels from Psygnosis' blockbusting new release (reviewed on p30)**
● ***For technical reasons, this program will not transfer fully to disk. The Ablex disk version, however, works as normal***

■ ***Type-Ins AA80*** **– all the readers' progs from the May issue, just in case you couldn't type them in!**

■ ***Pokes galore!*** **– a giant wodge of pokes for all the best games.**

■ ***Dragontorc*** **– mystical adventuring but with arcade action – complete game from Hewson**

■ ***Power Page*** **– from Robot PD, probably the best PD desktop publishing package you can get.**
● ***This program must be transferred to disk using the special built-in routine before it can be used***

HOW TO LOAD YOUR COVERTAPE

Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)

A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program.

Note that BASIC progams (e.g. the pokes) must be loaded direcly from BASIC with the RUN" command.

* If you have a disk drive connected to your machine you'll first have to type |TAPE to switch the machine to tape loading rather than disk loading. (The | is obtained by pressing SHIFT and @) The computer will load the next program.

program details over the page

Disk owners read this!

If you have a disk drive, you'll only ever have to load from the tape once – all programs are transferred easily to disk.

Insert a blank formatted disk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one (6128 owners) – it'll automatically stop the tape in the right places when accessing the disk drive.

Load the menu program in the normal way and select the TRANSFER TO DISK option. Follow the on-screen instructions and press a key when the computer asks you to. It's as simple as that!

If you have problems you'll be asked to rewind the tape and try again. If so, don't panic – follow the advice for tape loading troubles. Still no luck? Then Ablex will replace your tape. See overleaf.

disk offer

Owners of the 6128 Plus are unable to connect a cassette recorder to their machines. If these or any other users would like a copy on disk, simply snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 made payable to Ablex Audio Video Ltd to:

AA82 disk offer, Ablex Audio Video Ltd., Harcourt, Halesford 14, Telford, Shropshire TF7 4QD.

disk 82 token



1 Lemmings

Loading: *Lemmings* must be run direct from the main menu.

playable demo

Hurrah! At long last the most famous computer game of all time (er, apart from *Tetris* and *Kick Off 2*) reaches a computer screen near you, and we have four levels of the ace puzzle game here for you to pit your wits against.

There are two different sorts of playable demos you can get. There are the ones that give you a massive chunk of the game to play, and are virtually complete games in themselves (eg *Turrican 2*, *Stryker & the Crypts of Trogan*). And then, at the other extreme, there are those demos that really just give you a taste of what the game is like. You can finish them on your first or second go, and they really just serve as adverts for the game and an opportunity to see if you like the game style or not (eg *Turtles 2*, *Thunderjaws*).

Lemmings falls firmly into the latter category. Of the four levels provided, three can be finished at the first attempt and the fourth only presents a short-term challenge. But, as we've said, it gives you an opportunity to see if you like the style of the game. So hurrah for that!

More info in our centre pages review...



■ **Breakthrough! Watch out world, it's lemmings on patrol. Nothing can stop them!**



■ **More merciless walking from the little purple chaps. Totally astounding, eh?**

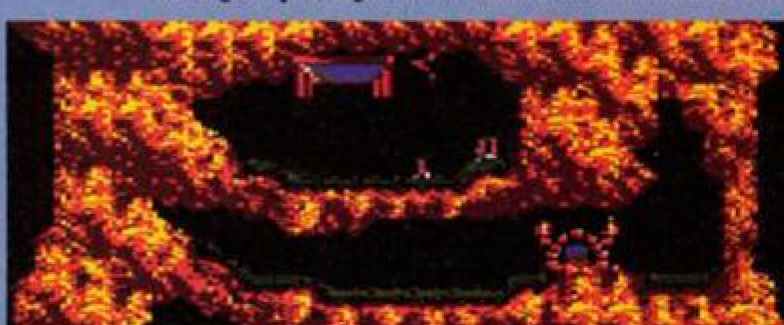
*** Lemmings controls**
Joystick or cursor control

Q	Up
A	Down
O	Left
P	Right
M	Click on lemming
N	Lock on lemming
Z	Scroll left along icons
X	Scroll right along icons
L	Scroll level left
ENTER	Scroll level right
SHIFT + ESC	Nuke level
SPACE	Pause game
1-10	Highlight icons

swell maps

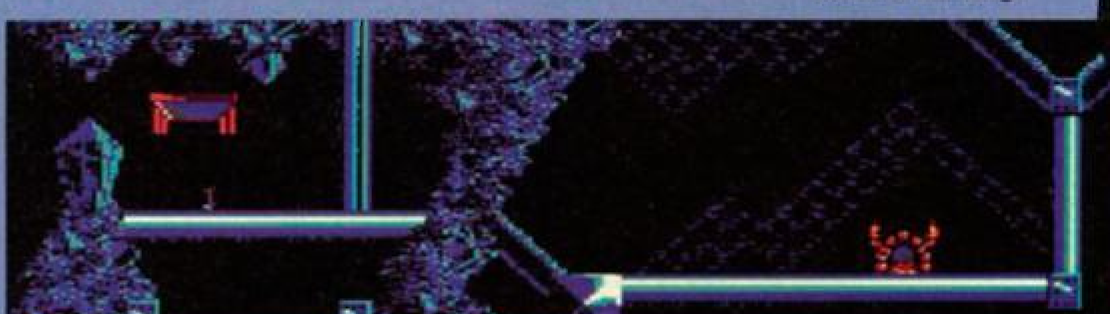
Here's what you get...

We can't really give you any *Tips & Tactics* for this one, dudes, seeing as three of the levels are so pipsily easy we'd give it all away. So, instead, here are just the maps of the four levels we've given you, together with some inane comments from Adam...



◄ **LEVEL ONE: This is a totally simplesome cave, with just a few bits of rock for an opponent.**

▼ **LEVEL TWO: There don't seem to be any obstacles at all on this level. But that drop looks a bit long.**



► **LEVEL THREE: Slightly harder, with more than one function required to win through.**



▼ **LEVEL FOUR: This one might take a few attempts. If at first you don't succeed, think a bit harder!**



freeze frame

SCALE THE HEIGHTS



Just to add a bit of confusion, this grab isn't actually from one of the levels on the demo. The *Freeze Frame* just sort of overrun from our fab review in the centre pages. You can see the entrance (**1**) and the exit (**2**). Your lemmings start of just walking (**3**), but click on them when they're under your pointer (**4**) and they start doing other things. Climbing (**5**), for instance.

The bar at the bottom allows you to increase the speed of the lemmings' arrival (**6**), select different functions you want to bequeath on your lems (**7**), but only when there is a number above the relevant icon, pause (**8**) and nuke the level (**9**), which is a fancy way of saying 'quit'.

Also on screen is the name of lemming type under your pointer (**10**), the number of lemmings that have got home (**11**) and the number that are still wandering aimlessly round the complex (**12**). Oh yes, and the time remaining (**13**).



■ Doesn't look very exciting, does it, dudes? Yeah, but wait till you play it...



complete game

■ All the screens look very similar, so a bit of mapping might be called for.

2 Dragontorc

Loading: *Dragontorc* is on side two of the tape, and must be run direct from the main menu.

We're not much good at *Dragontorc*, so we've asked our mate Jon from *Your Sinclair* about it. What do you have to do then, Jon?

"Well, an evil witch queen Morag the sheep-stealer has also stolen the five crowns of King Arthur (or something), and as Maroc the mage you have to try and recover them and give them to the wizard Merlyn (or something)."

Great. Thanks Jon.

"This game was first released in 1985 on two formats. The sequel to *Avalon*, *Dragontorc* is..."

Er, yes. Thank you Jon.

"The game was originally programmed in..."

No, stop! Enough! You move the joystick to select whether to move, use a bane (kills baddies) or call up a servant (searches trees for you, looking for inaccessible pick-up items).

There are lots of objects to collect and 250 locations. It might look a bit old and nobby, but it scored 86% (AA2) and has more long-term appeal than most games today.

*** Dragontorc controls**
Keyboard or joystick control

A	Up
Z	Down
/	Left
\	Right
SPACE	Fire

freeze frame

IN THE FOREST



Maroc the mage (**1**) is the dude you play. There are also a couple of baddies (**2**) on screen, together with a pick-up object (**3**). The pathways are the exits to other screens (**4**). At the bottom of the screen is the name of the option currently being used (**5**), a picture of a branch (**6**), together with the name of the area you're in (**7**), and the amount of the mission you've so far completed (**8**). As you can see, we're not doing phenomenally well at the moment!

TAPE WON'T WORK?

We go to great lengths to make sure that our covertapes work properly. They are checked directly after the master copies are made and then again once Ablex, our duplicators, have run off a series of test tapes. Only when we give the final go-ahead are the tapes on the front of the magazine actually produced.

However, a few of you may still have difficulty. If so, the problem may be with your equipment. Try the following:

- Try loading at several different volume levels if you're using an external tape recorder. Computers can be fussy about the volume they will load at.
- Clean the tape heads. This can be done with any commercially available cleaning kit. Or else use a cotton bud soaked in alcohol. Gently rub the surface of the heads and pinch roller to remove that layer of accumulated grime.
- Adjust the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Rotate it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.
- Sometimes the tape spools can jam or stick at a critical moment. Check the spools in your cassette rotate freely, if necessary giving the casing a slight tap against a table edge just to make sure.

If, after trying the all of the above, you still can't get the tape to load then you can return it for a replacement. Send the tape, along with a brief description of the problem with an SAE to:

AA82 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt,
Halesford 14,
Telford,
Shropshire TF7 4QD

4 Pokes

games pokes

Loading: The pokes must be run from BASIC. Type RUN" and the relevant filename (highlighted in bold below). See Cheat Mode on page 36 for more detailed info on how to use these pokes.

Wow! Have we got a lot of pokes for you this month or what, readers? Like, we are talking double figures. Blimey! Better get stuck straight in then:

D-LAIR2.PH Here's infinite lives and a level select for the mega difficult Dragon's Lair 2 cartoon-cum-game (original tape version).

JOEBLAD3.PH Infinite energy and ammo in (can you guess?) Joe Blade 3.

LASER.TEJ *Laser Squad* is Rod's favourite computer game of all time (Rod: "I've never seen a better game on any machine, and I don't expect to"). Here comes a poke-and-a-half for it!

MYTH.MW Infinite lives on *Myth – History in the Making* (just out on budget).



■ *Myth* is a stonking game. The review's on page 44, the cheat's on the covertape.

INDY.ST The new Indy game should be out any day now. In the meantime, here's infinite lives, whips, time and blancmange for *Indiana Jones and the Last Crusade*. (*Blancmange? – ed.*)

rICK-1.ST + RICK-2.ST Excellent pokes for infinite lives, bullets and bombs on *Rick Dangerous 1* and *2*.

STRIDER.ST Infinite loads of things for *Strider*.

PSYCHO.GS Got a tape version of the old classic *Psycho Hopper*? Well have infinite lives and more time.

SOLOMON.JKO A similar sort of cheat to the *Strider* one, this gives loads of cheatingness for *Solomon's Key*.

More heartless cheating next month, and if there are any games you'd like to see pokes for on this tape, write to: Poke Requests, Cheat Mode, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW. We'll put Uncle Phil Howard straight on the case.

5 Power page

complete program







■ **Tim Blackbond's *Artificial Intelligence* is produced on *PowerPage*. Impressed?**

Loading: PowerPage is on side two of the tape, and must be run from disk (it's disk only – sorry). Stick a blank, formatted disk in Drive A, stick side two of the tape in the tape deck and type RUN" – the program will automatically transfer itself onto disk. Once it's been transferred, reset the computer and type RUN"DISC

We've gone out of our way to bring you the best in public domain software on our covertape, and here we are with the best PD desktop publishing program, Richard Fairhurst of Robot PD's *PowerPage*.

There simply isn't room here to go into all the details of what you can do with the program, and there isn't really any need either. Good old Rich has included a massive DOC file with the full instructions on it. This can be run straight from the *PowerPage* main menu (RUN"DISC).

Remember, our new desktop publishing series has just started (page 42 of this ish) and we will feature a series by Richard explaining how to get the most out of *PowerPage* very, very soon.

Ever wanted to do your own magazine? Well now you can. *PowerPage* prints out mega-flash A5 pages, and does everything you could possibly want. Ace.

*** PowerPage controls**
Joystick control – see instructions file for full details

THE PUDDING

The proof of any program is in the pudding. Tim Blackbond's excellent *Artificial Intelligence* fanzine (sample pages above) is produced entirely on *PowerPage*, and we have included a few pages from it here to give you an idea of the quality of *PowerPage* output. Gnarly!

disk file

WHAT'S ON THE DISK?

You get more than just a DTP program with *PowerPage* – in fact virtually a full disk worth of stuff, including:

THE PROGRAMS

POWERPAGE The main program, and the best PD desktop publishing package there is.

FONT EDITOR Design your own fonts with this brilliant little program.

HEADLINE CREATOR For knocking up big banner headlines for use on your pages.

TEXT EDITOR A simple ASCII word processor.

TEXT CONVERSION Converts text from other word processors for use in *PowerPage*.

FONT GRABBER To import fonts designed on other programs (e.g. *Advanced Art Studio*) and turn them into a *PowerPage* friendly format.

MODE 1 TO 2 Transfers mode 2 screens (from art packages etc) into mode 1 – only mode 1 pictures can be used as clip art.

INSTRUCTIONS A massive 40K DOC file telling you everything you need to know.

● On top of all this, there is also a selection of fonts and headline fonts, together with some pieces of clip art (in CUT format) which can also be used with *Stop Press*.

3 Type-ins

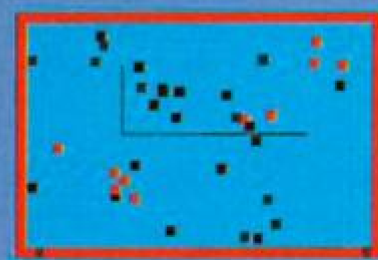
readers' programs

Loading: The Type-ins must be run from BASIC. Type RUN" and the relevant filename (printed in bold below).

There have been a few problems with the Typos on the tape. Some of them only work on 6128s, due to including things like graphics FILL commands. We're trying to find some way round that, but in the meantime we'll be pointing it out when a program is 6128-only.



METRO.BAS Totally without any sort of practical use, *Metro* draws a car and makes a horn noise. Tsch, well we think it's great. Ted English from Hampshire done the biz, and tiny kiddies will no doubt love it.



LC.BAS (6128 ONLY) A light cycles game from Tom Pearce of Aversham. It only takes up 2K of code, and it's totally playable and totally addictive. It's two players only though, so all you sad, lonely people with no friends (like Adam) won't find it much use. (I've got loads of friends, actually, it's just that they're all... invisible. Look, here comes one of them now. It's Kevin. Hello Kevin – Adam.)



BOULDERS.BAS Run across the screen, trying not to hit the rocks! This is from 13 year old Raymond Mulvihill of Hampshire.

● Next month we give you Hey Jude, a sliding numbers game and a smart disk scanning utility!

reaction

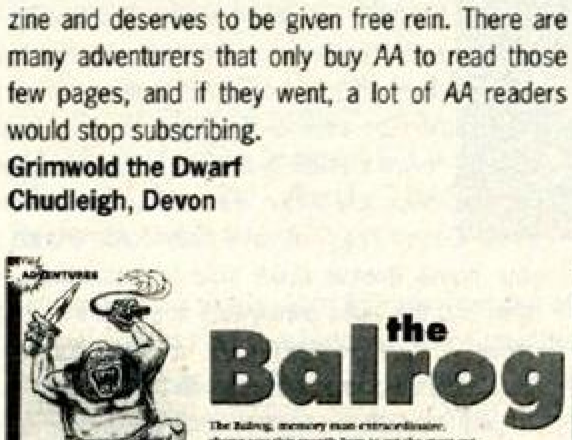


Summer's here and the time is right for dancing in the street... And here's ADAM PETERS with this month's *Reaction*. Is it going to be completely bogus this month, Adam? "I certainly hope not." Why? "Because bogus means crap, as anyone under the age of 35 knows." Write to: *Reaction, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW*. It's completely *un*-bogus.

BALROG CUT DOWN

I have heard, from a reliable source, that the editor of this rag has decided to restrict the Balrog's excellent adventure column to two pages! Why? This is the best adventure column in any 'glossy' magazine and deserves to be given free rein. There are many adventurers that only buy *AA* to read those few pages, and if they went, a lot of *AA* readers would stop subscribing.

Grimwold the Dwarf
Chudleigh, Devon



Adam: Dear Mr Dwarf, here are the best and worst features in the magazine, according to our readers (averaging out the scores out of ten awarded by the 1,215 people who responded to our readers' poll):

The Best:	**1) Action Test**
	2) Reaction
	3) Cheat Mode
	4) Buyers' Guide
	5) Grapevine
The Worst:	**1) Machine Code**
	2) Gallery
	3) Balrog
	4) Aafterthought
	5) Helpline

You'll notice that of the bottom five, *Aafterthought* has been scrapped, *Helpline* re-organised, *Machine Code* and *Gallery* cut in size by 50% and *Balrog* cut in size by 33%. Space is very limited in *AA* and in order to include new series (eg PD, DTP) it is necessary make some cuts somewhere.

For every person who swears by *Balrog*, there are another two or three who want the section scrapped. We've cut down the size of the adventure section, but we hope to be making better use of the space available. Are we turning our back on our adventure fans? No way. The section isn't going to be cut down any further, and there is no question of scrapping it. And we're going to be including adventure stuff in other sections of the magazine every now and then. Next month, for instance, our *Buyers' Guide: Games* will be on adventure/RPG/strategy games (and it'll be written by the Balg). And look out for PD adventures in *Public Image*.

The decline in new full-price games has seen *Action Test* fall in size by 50% over the past two years, and you really expect *Balrog* to stay the same size forever? There hasn't been a commercial adventure out for the CPC for years, surely?

SWEARING SOFTWARE 4

As I understand it, Ocean's game *Dragon Ninja* has a message in it that would offend certain people. But why is everyone up in arms about it? As most of us know, children are not the 'little darlings' that a lot of parents would have you believe. Anyone who lives near a school would probably confirm that the language they use would give Mary Whitehouse a coronary, it is a part of growing up. Mind you, finding a message like that in a commercial game is not something you'd expect. But are Ocean really so sorry about it?

If they have an ounce of business sense amongst them, they will surely have realised that publicity like that is no bad thing. I expect that if someone were to check the sales figures following this revelation, they would show a definite upwards curve. Why? Because the 'little darlings' have been buying the game just so they can try and hack into it to see two controversial swearwords! I would wager that the top people at Ocean are not weeping in sorrow, but are laughing their collective socks off, thinking of all the extra sales they have reaped from this. Can we now expect other companies to follow suit and 'inadvertently' leak details of swear-words in games to boost flagging sales?

Simon Avery
Chudleigh, Devon

Adam: Are you sure about this, Simon? You'd have to be a really sad case to spend £3.99 on a game just so you can be told to "f- off" by it.

DEAR MARYANNE

As a boy who witnessed the great *AA* sexism debate and Emma Broadley's rantings, I am upset that you have let down *Amstrad Action*'s reputation as non-biased by making a blatantly sexist remark: "send in your correspondence (female readers especially)." You seem bent on separating your section of the mag for females only. This is disappointing to say the least.

Ciaran McNulty
Stourbridge, West Mids

Adam: We're keeping Maryanne well away from the letters pages this month, after she took up most of last month's with photos of bunnies (tsch). So I'll answer this question: you are totally and utterly wrong, Ciaran. Women are rarely encouraged to get into computers or computer games. Our recent readership survey shows that a massive 95% of our readers are male.

There is a problem in this, as it could help to foster an unhealthy 'boys club' atmosphere, with women (who form the majority of the population) pushed off the pages of this magazine all together. Creating a climate where women are not discouraged from getting into computing means increasing the profile of the women already involved. Look at this month's *Reaction*: twelve correspondents/writers, every single one of them male (Grimwold the Dwarf is male, we've checked).

We're not into printing letters just because they're from women, but the more letters from females we get, the more chance of some of them appearing in print.

So it's not just restricted to *Maryanne's Mail*, Ciaran; I want more women writing to *Reaction*, Adam W wants more women writing to *Forum*, Phil Howard with *Cheat Mode*, and so on.



How to run a fanzine

DR BERTRAM X FEGG is back, and this month he's going to be dishing the info on how to run your own magazine (and make loads of money doing it). Take it away, Feggie...

Almost seven years ago, *Amstrad Action* was founded by some out-of-work hacks with a few quid in their back pocket. Over 80 issues later, and the same people produce twenty magazines, each selling tens of thousands of copies costing a few quid each. A few simple sums show you how much money is to be made from computer magazines.

Of course, you shouldn't try to compete with the big magazines like *AA*. This is for two reasons: the first is that they have lots of money already, and you don't. I know this from comparing the amount of money *AA* is paying me to write this column, and the amount I get paid for writing my column in *Artificial Intelligence*. The second reason is that if I tell you all how to write a magazine that will compete with *AA*, Rod might well apply electrodes to sensitive parts of my anatomy. Now I've never been beaten by an editor before, and although I think Rod would back down when faced with the Fegg ice pick, I still wouldn't be popular. So no luck on how to start your own major publishing company.

What you can do, instead, is run a fanzine. Of course, that's not to say that there's no money in fanzines. A typical fanzine costs about as much as a news-stand magazine, but has black and white printing only, and you don't have to pay newsagents half the cover price because you sell it yourself.

There are two types of fanzine: the traditional paper fanzine, and the disk fanzine. Although disk fanzines are still relatively unknown in Britain, they're very popular in France. A French disk fanzine has music playing while you read the articles, graphics that would put most games to shame, etc. However, they do have one disadvantage – they're in French. Why their editors haven't realised where they're going wrong here, I don't know, but it effectively means you don't have to worry about competition from France. You can make a disk fanzine with just a few text files on a disk, with a program to put them on-screen.

This becomes pretty tempting, because production of a paper fanzine is an absolute bummer. First of all you need a DTP package. Once you've bought this, you'll find that the instructions are completely incomprehensible, and you'll go and buy a word-processor instead. You read the instructions for this and don't understand a word, so you go out and buy a pen, and write all your pages out by hand.

Some people have actually figured out how to work their DTP packages. The only problem is that the only features they know how to use are the clip art and font options, so every page has at least five small pictures of Christmas trees, a bunny rabbit and a map of Britain, together with a headline in Gothic script magnified eight times (to bring on that peculiar sensation known as vomit). If there's still any space for actual articles (unlikely) then an unwritten rule of home desktop publishing states that they must be in text so small you can only read it with a magnifying glass, and the font used must be a really naff futuristic-looking one.



■ Meet Mr Stapler. Along with Mr Pritt Stick and Mrs Letraset, you'll need them to be on your side in fanzineland. Blip.

Other people, although stumped by the desktop publisher, know how to work a word-processor, and so produce a whole fanzine on this. This brings a really exciting feel to the whole magazine: pages upon pages of pure text! That lovely Amstrad DMP NLQ font (remember that on Amstrad printers, NLQ stands for Not Letter Quality), and if you're feeling really adventurous, you can even use (pause for breath) bold letters! Just when you thought the reader couldn't stand any more excitement, you knock them out cold with a few headlines produced with Letraset, to give that really professional feel. (Please note that Letraset is a copyrighted trade mark, so every time you read that word, you must send some money to Letraset. I am an acting agent for Letraset. Send all money to Fegg Enterprises, address on page 2.)

You'll need some way to duplicate your fanzine. If you've decided on a disk fanzine, this is where you start smiling, because all you have to do is boot up a disk copier and copy the fanzine over to the customer's disk. For this you can charge over a quid (this is the same way that PD libraries make their money). However, if your fanzine is a paper one, you'll need to get it photocopied. Taking it down to the local library and photocopying it there is not a good idea, because a 40-page fanzine will cost six quid to produce at 15p a sheet. At this rate your first million isn't going to come too quickly.

A far better idea is to save up for your own photocopier. There is one slight problem with photocopiers – they're crap. When they're not missing the edges off your pages and making the whole page either too dark or too light, they're usually refusing to work at all. However, Fegg Enterprises can help you here again. For a small fee of only £500, Doctor Fegg will personally come around to your house (please make sure to leave the door open and the video unplugged) and kick the photocopier. If it still doesn't work, it's time for some heavy-duty electronic surgery with the ice-pick.

So, that's all you need to know about how to run a fanzine, apart from one more unimportant detail: the articles. Luckily, these are easy enough. To start off with, you'll want to give your fanzine a bit of 'gravitas' by getting some bespectacled techie nerd to write incomprehensible machine code articles. Then you can review a few bits of software (with the very latest games reviewed, such as *Harrier Attack*), print a few Multiface pokes (for games such as *Harrier Attack*), which you can copy out of the big mags anyway, and list your hi-scores on all your favourite games (such as *Harrier Attack*).

To fill up a few more pages, print a listing. When this gets to ten pages long – which is how long you want it, to fill up as much space as possible – nobody will type it in anyway, so you can write whatever you like. Just to make sure that nobody types it in, label it a 'Simultaneous Equations Solver' or 'Light Cycles game'. Finally, write an article about how you produce the fanzine, and make up some letters for the letters page, such as "Dear Editor, I think your fanzine is really terrific and much better than any other I've ever read". Nobody will suspect anything, except those people who realise that it's the first issue and so nobody could have written a letter like that. Intelligent people like that are probably off earning lots of money with their own fanzines anyway...

• Next month Dr Fegg will tell you how to write your own programs. Don't miss it.

photo compo

A few months ago we asked you to send in photos of people reading *AA* in strange places, celebrities reading the mag and so forth. Despite our offer of lavish prizes (£10 for the best pic of the month) we've only had a handful of entries so far. Here are the best of them:



What ho, here's Edward Furlong, the star of Terminator 2, relaxing with a cat and a copy of *AA*. Our art department have been studying this picture using our ultra-sonic hi-res digital scanner, and we can exclusively reveal that this is in fact a poster not a real person. **David Agrawi of Reading** has cleverly stuck in a photo of *Amstrad Action*, and only the cut line around the cat's paw gave him away. Nice try pal.



It's Norgie! Yo Norgie! (*Er, who's Norgie? - ed.*) He's an army type dude Rod, and here he is taking a break from re-fitting an engine to a Challenger Main Battle Tank. And what's that he's reading? Why, it's every squaddie's favourite mag: *Amstrad Action*. **Seargant S A V Ellis of the 3rd Royal Tank Regiment** sent in the pic. Nice one.

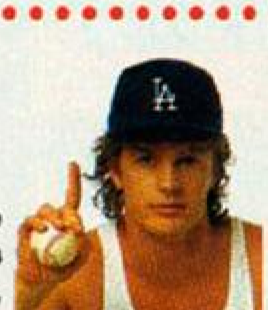
Finally, here's a picture from **Marcus Durham of Farnham, Surrey**. Marcus went to Florida recently, where he took this picture of Donatello 'reading' the mag (or rather, someone else took the picture – Marcus is in it you see). Says Marc, "please try and disassociate me from the Turtles, but you did say someone famous had to be holding the mag and you can't get more famous than them. Besides, I couldn't find the Muppets."



All the entries are fab, but we decided to send the £10 to Marcus because he went all the way to America to take the picture, which smacks of real dedication. (*Er, it's just possible that he didn't go over there purely to take the picture – ed.*) We're upping the odds, folks, and offering £20 cash for any pictures of bona fide celebrities (not cardboard cut-outs, posters or waxworks) reading the magazine.

celebrity CPCs

NO 1 CRAIG MCLAUGHLAN



Every month we talk to a major celebrity who we reckon might own a CPC. This month's celeb is former Neighbours heart-throb and pop star, Craig McLaughlin. CPCs are popular in Australia and Craig could well have bought one a few years ago. We rang Craig up to ask him what his favourite game is. He said, "Christ man, it's 4 am. I've been out lugging spittles for a barbie all avvo. Who lagged my number? Fair dinkum, get off the phone I need a sleepo." And then he hung up. We asked Ange, who watches *Neighbours* a lot, and she reckons *Lotus Esprit Turbo Challenge* is probably Craig's top game.

the kitsch-in

ANGELA NEAL doesn't like Spirographs, Dick Tracy, *Red Dwarf* or '70s make-up. But that's OK when you're an art critic. Munching discreetly on a prawn vol-au-vent, she casts her eye over another portfolio of readers' pictures. Yes, but is it *art*?



■ When I was about ten I had a spirograph. With the help of a few felt-tips I produced things like this. Move over spyrograph users and make way for PD pseudonym Dino's *Dallvre* progs.

▼ We think this young lady is stuck in a time warp in 1972, all that blue make up! However it's an origonal painting and jolly with it. £10 goes to John Botofte of Denmark.

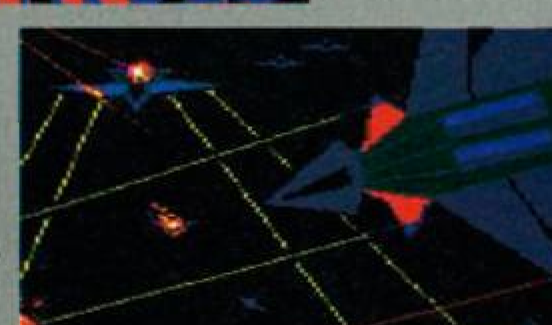




■ Apparently, according to Adam, Dick Barton goes round and shoots people. He appers to be getting shot himself here or is a trick of the light? Neat trick with the two colours, eh?

NOTE: Asma Sarafaz, please ask your brother to send his pics in again. Daft Adam lost them. Sorry.

■ Here goes with a space extravaganza from Philip Harbord of Petersfield, Hants. Suffering *Red Dwarf* on our television once a week is as much contact with science fiction as I can manage, but this is pretty funky.



WE WANT YOUR ART, DUDES!

***The Kitsch-In* is *AA*'s regular section for readers' art. Once you've knocked up a picture (on *Advanced Art Studio, Smart 2, GPaint* or whatever), chuck a copy on to a tape or disk, and send it to: *The Kitsch-In, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW*. You could win £10 and fame beyond your wildest dreams.**

making a game of it

PART THREE

Taking shape

It's the third month of our *How A Game is Made* series. Photos are racing in from Morecambe, graphics are arriving from Macclesfield, and ADAM PETERS is sitting at his desk in Bath, pulling everything together...

Large things are afoot in the world of Big Red Software. Jon Cartwright, the bloke who will be programming *Seymour's Wild West*, has been taken on full-time, and the whole gang are getting set to pack their bags and leave Macclesfield. They've booked a space in the latest new building to appear at CodeMasters' Leamington Spa HQ.

As this issue was going to press, we got a call from Big Red dude Pete Ranson. He has now completed all the other projects he was working on, and is turning his attentions full-time to *Seymour's Wild West*. A lot more graphics, particularly backgrounds (see below), have been designed, and the game is starting to really take shape.

Pete has started collecting all the puzzles together and is deciding which ones to use in the game. Depending on which puzzles are chosen, he

the man with the code

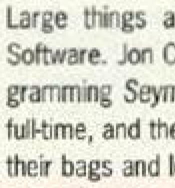


Here's the bloke charged with programming the code for *Seymour's Wild West*. He's called Jon Cartwright, he's 21 years old and he's got a degree in computer science ("we're all far too smart at Big Red"). Last year he wrote *Prince of the Yolk Folk*, popularly recognised as the best Dizzy game of recent times.

Jon originally got into programming by writing games on the Dragon 32 (you could get a pint of lager and a packet of chips for sixpence in those days, kids). He can program in many different languages and has written various types of program, including serious applications such as databases etc. He likes playing computer games, rock climbing, and playing pool. He doesn't like getting up in the morning. And his favourite band are, er, The Police.

see more of seymour

A lot of different tactics are used in creating the maps for games. Here's an exclusive look at a few screens from *Seymour's Wild West*, together with some notes. (By the way, these are Spectrum screens. The graphics aren't ported over to the Amstrad until much later in the process.)



Update graphics from earlier games: The new Seymour sprite is basically the old Seymour sprite, but with a cowboy hat on. Subtle alterations like this mean you get the continuity but still give the new game an identity all of its own. According to Paul, Seymour will wear a different costume in every game he appears in.

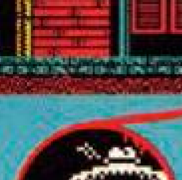


Combine sprites for more variety: At first glance there are three different cloud sprites in use, but look more closely: this large cloud is simply the two small cloud sprites placed next to each other. This technique means that you can get a lot more mileage out of a fairly small number of sprites.

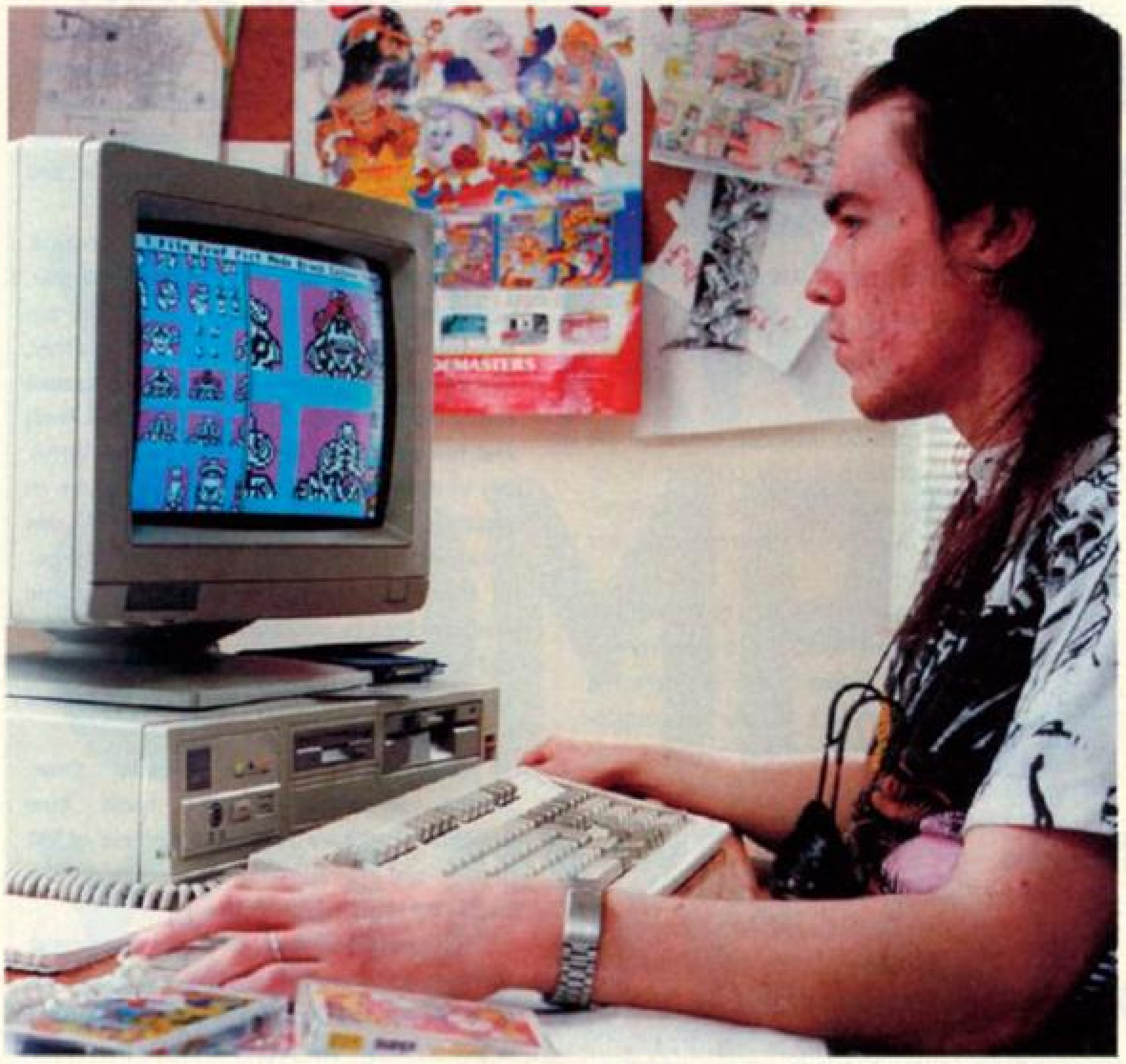




Re-use sprites you've already got: Recognise these crates? Well you should do, these sprites were originally designed for *Seymour goes to Hollywood*. Crates like this littered the map of Seymour's first adventure. Re-using old sprites saves time, gives you a starting block to work from, and helps to build the character of a series of games.



Make some changes where necessary: In Seymour goes to Hollywood all the other characters were human (er, except the ones that were gorillas or parrots). For *Seymour's Wild West* it has been decided to add some more Seymour type characters, similar to the way the Yolk Folk dudes suddenly appeared in *Fantasy World Dizzy*.



■ **Designing sprites is a highly skilled technique. Here we see Big Red artist Pete Ranson working on the sprites for the 'death sequence', adding a hat to the *Hollywood* sprites.**

will then 'knit' together some sort of story, and eventually, a complete game spec.

Wild West has now reached the stage where a new face is to be added to the throng; that of Jon Cartwright, the programmer. Having just completed a university degree course, Jon is racing down from Morecambe to team up with the Reddies at their new Leamington pad.

By the time the programming of the code actually commences, the project will be into its fourth month of development and most of the map (graphics) will have been completed.

There are going to be a lot of in-jokes in the game if some of the ideas we've heard so far make it to the final cut. One idea is to have codes hidden throughout the game which, when found, should be taken to the 'game genie' located at the start of the game. The genie will then transport you to a different section of the game, and the character is clearly a reference to the Codies best-selling Nintendo cheat device, the Game Genie.



■ **Get set for a real smoking gun western adventure. Not starring Steve McQueen.**

Then there's the bus. Big Red Software is clearly a name based on the phrase 'big red bus'. The bus is something of a totem for Big Red, and they'd like to get it in a load of their games. But they haven't got it in any yet. They actually planned to hire a big red bus last year and drive it around for publicity!

Members of the CodeMasters team will appear in the game and there is also talk of a possible cameo role for Dizzy. There will be phones littered around the place – pick one up and Seymour will ring the 0898 helpline number. Occasionally it'll give you a clue, sometimes it won't. After all, if they give it all away, you won't need to waste all your (parents') money ringing the real helpline.

As for the Amstrad graphics, these aren't done till a lot later. Big Red don't do straight Spectrum ports, they like to spend time shading and colouring the characters. They tend to do everything in four-colour mode, partly because it's easier to convert from Spectrum in that way (otherwise it would take too long) but also because the Reddies think four-colour graphics look really ace on the Amstrad. Doing it in 16 colours would require double-width pixels, which could also look like nice but just wouldn't be possible when using the Spectrum graphics as a base.

Next month things are going to start getting really manic as Jon launches into the programming, Pete picks out what puzzles are going to be used, and the game starts coming together in a big way. Watch this space...

softie spot

GOING FOR GOLD

Adam goes to Birmingham to rap with the US Gold posse about life, the universe and play-testing...

Birmingham, the second biggest city in Britain, is home to a number of good clothes shops, record shops and computer software shops. Unfortunately, no-one in the *AA* office knows what any of them are called, so we'll have to jump straight to our rendezvous with US Gold at their plush offices in the Holford area of the city.

There are two large warehouses on the Holford Industrial Estate that play a very important role in the British software industry. The largest of these is the Centresoft warehouse. Centresoft are the largest software distribution company in Europe, and this warehouse contains more items of software than a sumo wrestling team could eat in a month. And that's a lot.



■ **Members of the US Gold gang congregate threateningly outside their offices.**

The second warehouse, sitting alongside the first, is a smoked glass affair. One the first floor the breadheads of US Gold, Kixx, Centresoft and other companies whose home computer products the Goldies market (Capcom, Sega, Lucasfilm, SSI) wine and dine and do all the other things that breadheads do. The ground floor is home to the play-testing room and the PR dudes.

The US Gold PR team is headed by Danielle Woodyatt (Woody to her chums) and the dude *AA* raps with at the moment is someone called Andrew Watt, who deals in both US Gold and Kixx material.

With *Bonanza Bros* in the bag, and *Indy 4* whipping in soon, *Mega Twins* is the only thing we're still waiting for from US Gold. No-one knows what's happening with *Mega Twins* yet. The company unfortunately doesn't have any other releases for the CPC planned at the moment, but we can wait and see what Christmas brings.

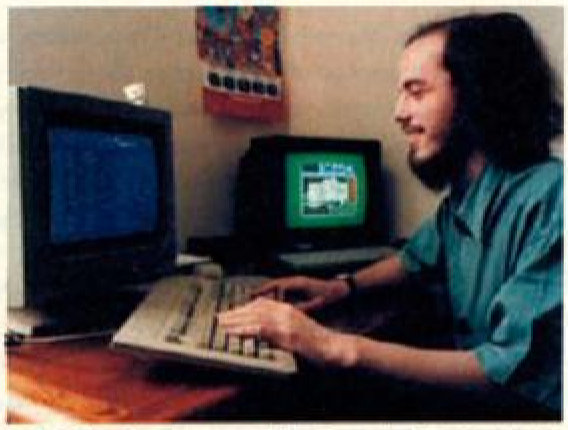
As far as Kixx is concerned, it's blimmin' bugetmania. The company is knocking out more and more CPC re-releases by the day. *The Lineker Collection* marks their entry into the world of semi-full-price compilations.

With Amstrad games often out-selling their ST compatriots, US Gold and Kixx certainly haven't given up on the old CPC yet!

GAMES PROGRAMMING PART ONE

Dressed for success

Name: ADAM PETERS. Subject: Games Programming. Question One: "So how are those commercial games we love and hate put together? Who are the characters involved? What do they do?"



A lot of programming work (particularly graphics) is done on IBM-compatibles.

The programmer may be the most important person involved in the development of a game, but s/he's certainly not the only person. It's easy to fall under the impression that a game is put together from start to finish by a lone character locked in a suburban bedroom. This is not the case. It takes a whole host of highly skilled craftspeople to put a commercial game together, as we now find out...

These people can be divided into two camps; people based at the software house and people working in a freelance capacity. The project managers and creative director types work for the softie; the programming types are usual freelance. Very few software houses use in-house programmers (Hi-Tec use them occasionally), though the freelance bods are often working for what is called a 'development house'.

Development houses can be anything from two people (a programmer and a graphics dude) working from home, to a big office with a staff of a dozen or more.

Many development houses will be able to cope with all three aspects of producing the game; programming the code, designing the graphics, and writing the music. Smaller houses, including the many one-person companies, may concentrate on one aspect (the programming or the graphics/development) and call in other people to provide the rest of the work.

Development houses sometimes come up with their own idea for a game, getting it to an advanced stage of development before trying to interest a software house in the project. Usually the development house is commissioned by a softie that already has an idea for a game. Often the software house will have got hold of some sort of licence (TV programme, coin-op, etc) and will work with their chosen development house to come up with a detailed idea of what the game should be like.

Games programming is as disorganised as magazine production. It's just not possible to work everything out in advance, and elements of the game will be changed, things will be added or removed, right up until the moment the finished version arrives at the duplicators.



Lots of programmers are very protective of their code. Even in photo studios.

A Team Effort

There are loads of development houses around. Some of them are big, some of them are small and some of them are middle-sized (*really? – ed*). Here's a list of a small handful of dev houses, the games they're responsible for and the characters involved:

Big Red Software: Based in Macclesfield, but soon to move to Codies HQ in Leamington, CodeMasters' favourite development house are responsible for titles like *Spellbound Dizzy*, *Seymour goes to Hollywood* and *Steg*. The squad consists of two graphics dudes (Pete and Fred) and two programming dudes (Jon and Terry), one of whom works from home. Big Red are an expanding organisation: programmer Jon Cartwright has recently joined the team full time.

Bizarre Development: Based in Sheffield, Bizarre consists of graphics dude Paul and code dude Richard. They are responsible for a lot of Alternative games, including the recent release *Bangers and Mash*.

Reflective Designs: Another CodeMasters favourite, Reflective come from Bradford. They have four or five people on the pay-roll, and are responsible for (amongst other things) the upcoming *DJ Puff*.

Simmer Software: Based in Sunderland, Simmer is programmer Jeff Calder and graphics dude Andy Wynd. They work from home, and are responsible for the recent CodeMasters Plus-buster *Stryker & The Crypts of Trogan*.

Visual Impact: This is just one person, a bloke called Dave Thompson, who works from home in Stoke-on-Trent. He's a programmer (the graphics are produced elsewhere) and he's done a lot of work for Hi-Tec, including the splendiferous *Potsworth & Co*.

These are just a selection of the development houses that specialise in 8-bit versions of games. Many of the big softies use development houses that produce both 8-bit and 16-bit versions. These include Images (*G-Loc*), Probe (*Out Run Europa*) and the shadowy Tiertex (*Bonanza Bros*) posse.

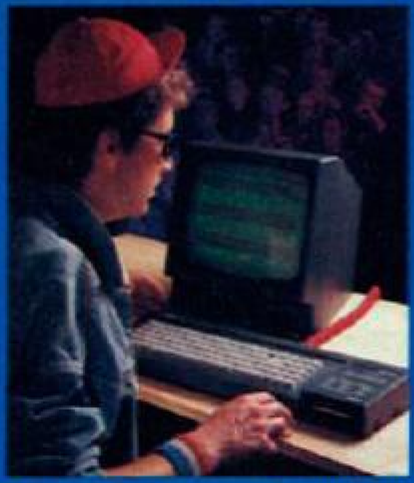
There are also a number of more famous development houses that deal almost exclusively in 16-bit/console games; Core Design, The Bitmap Brothers, The Kremlin and Sensible Software, to name but four.

Game Boys (and Girls)

It takes many hands to make lights work (or something) and here are the characters responsible for turning a few idle thoughts into a commercial computer game:

The Programmer is the person who puts the game code together, writing the game design program and the code itself, and combining the music and graphics with the code to create the finished game.

The Graphics Artist, not surprisingly, is the person who designs the graphics. This includes both the backgrounds and the sprites, which the programmer will piece together into the game map.



Here's a computer musician working on a title tune (ahem).

The Computer Musician writes the title tune and programs other in-game effects. Professional computer musicians will attempt to get funky sound into as little memory as possible (sometimes as little as 2K).

The Project Manager works for the commissioning software house. They are the person responsible for ensuring that things get done. They hassle the programmers when things are late, and try to make sure that all the separate aspects of the game to come together at the right time.

The Production Manager has a similar job to the project manager, but they are responsible for the whole range of different titles under development. They hassle the project managers to hassle the programmers (programmers, as you've guessed, are very hassled people!).

The Creative Director is responsible for coming up with ideas for games, packaging etc. They try to generate a focused idea for what a game is going to be like before the project even starts.

YOU KNOW THE COMPUTER YOU'VE ALWAYS DREAMT ABOUT?

GAMES PROGRAMMING PART TWO

Join the club

Name: ADAM PETERS. Subject: Games Programming. Question Two: "What advice would you give someone wanting to program their own game? What skills are needed? How do they interest the softies?"

So you want to be a computer programmer, eh? You've always wanted to see your games on the shelves of your local computer store? You'd like to make thousands of pounds doing something that you enjoy? But you don't know where to start? Ah...

The thing is, if you completely haven't got a clue about writing commercial games, you've got a bit of a problem on your hands. It's very difficult, you see, and requires a lot of hard work.

The first thing you need is to be able to program competently in assembly language (machine code) – BASIC simply isn't fast enough for commercial games. Writing in pure machine code is a very long and complicated process, though. Fortunately, programs called 'assemblers' (eg *Devpac*, featured on the *AA71* covertape) make the whole process an awful lot easier and quicker. But a strong working knowledge of machine code is required.

The Z80 processor is the vital component inside your CPC that does all the actual 'computing', and there are a number of books about Z80 language available if you hunt around. One of these books, and/or *AA*'s *Mastering Machine Code* series, might be a good place to start if you want to learn the language. You can't learn everything from books (most of it you'll pick up with practice) but without a reasonable grasp of Z80 language at the outset, writing a game is a pretty hopeless task.

Once you've got the skills, you'll need to put them into practice. Don't expect to be able to write to a software house asking them to give you a game to do. You're going to have to slog real hard to knock up a game



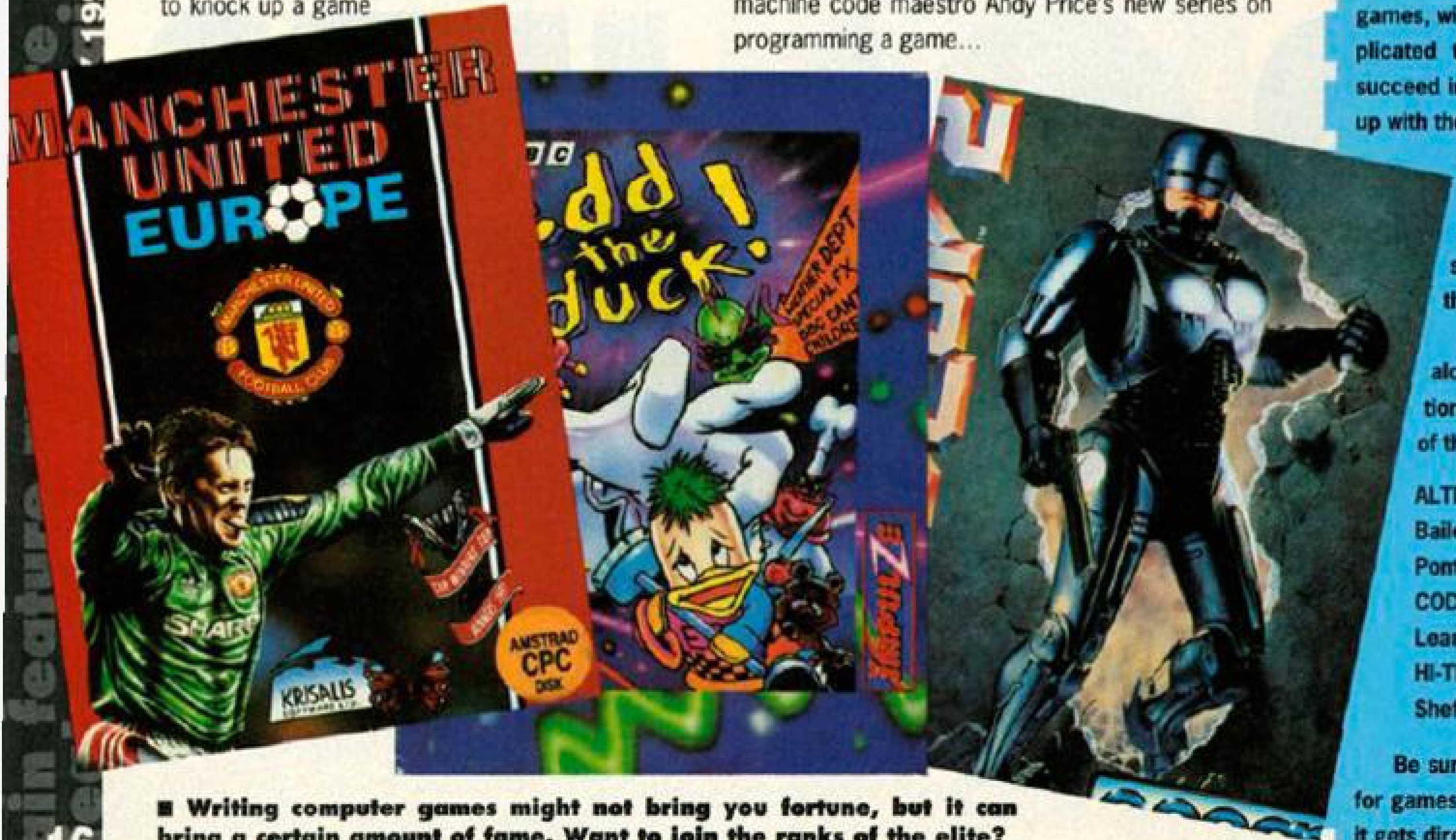
■ **Not all programmers wear shirts like this. In fact, this is the only one who does.**

(or at least an advanced prototype of a game) off your own back. You should then send this off to all the budget software houses you can think of. With a bit of luck, someone will decide to market it or commission you for another project. Hopefully.

You won't be able to get this game together on your own though. There are usually three people involved in putting a game together; there's a techie nerd in boffin-style glasses (the programmer), a bloke/blokette with long curly hair and a heavy metal T-shirt (the graphics artist), and a chap/chapess with short hair and a baseball cap (the computer musician).

Chances are you won't have the skills (or the physical characteristics, though they're optional) to fill all three functions yourself. That means getting other people involved. Maybe even paying them!

Yikes! It's all starting to get a little tricky now. Not to worry, trust your pals at *AA* to give you a bit of a lift-up. Next month sees the start of *AA* machine code maestro Andy Price's new series on programming a game...



■ **Writing computer games might not bring you fortune, but it can bring a certain amount of fame. Want to join the ranks of the elite?**

Making a million?



■ **Do you think all programmers drive round in BMWs? Think again, pal...**

It's a lot easier to get a break in 8-bit computer programming today than it used to be. Many of the established 8-bit programmers have moved on to 16-bit and console games, where the money is greater, and there is now a distinct shortage of programmers for the Amstrad.

French software house Titus has had to hire a British programmer for many of its recent CPC games, and every softie we've spoken to, from CodeMasters to Ocean, has complained about how difficult it is to find decent programmers nowadays.

If you've been meaning to try and break into programming games for the CPC, but have so far not got round it, now's the time to make your move. But hey, don't give up the day job, it takes quite a while to get established in a career as fortune-based as programming. For every success story, there are a couple of failures.

Even when you do make it, don't expect Rolls-Royces and caviar. Writing games might seem like a glamour job, but it doesn't come with a glamour lifestyle. Unless you consider the idea of working right through the night for a basic living wage glamorous, that is.

The Easy Way

You've read the main spiel on this page and you think it all seems a bit much? Hmm, well there is an easier way to gain fame in the world of CPC games, without having to bother with all the complicated techie stuff. It's a difficult tactic to succeed in, but you could always try just coming up with the 'idea' for a game.

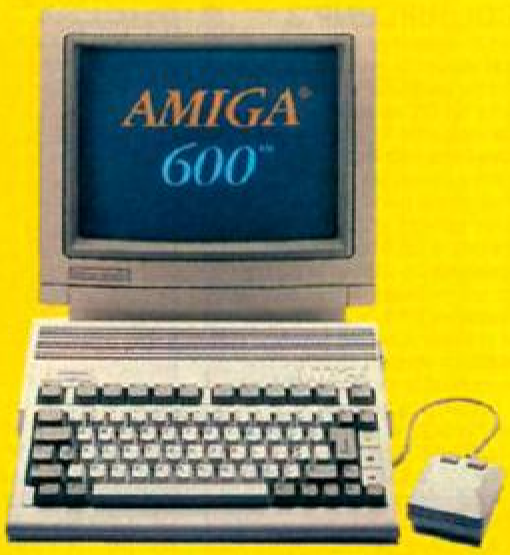
You've got to come up with something completely original, a game so brilliant and addictive that no sensible software house could do anything other than produce it.

Write (or type) your idea neatly, along with any accompanying illustrations/ maps etc, and send it to any or all of the following:

ALTERNATIVE SOFTWARE, Units 5-7, Baileygate Industrial Estate, Pontefract, W Yorks WF8 2LS.
CODEMASTERS LTD, PO Box 6, Leamington Spa, Warwickshire CV33 OSH.
HI-TEC SOFTWARE, PO Box 299, Sheffield, Sth Yorks S7 2EZ.

Be sure to mark your envelope clearly 'ideas for games' (or something similar), to ensure that it gets directed towards the right person.

WELL, STOP DREAMING



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NEWS... NEWS... NEWS... NEWS... NEWS... NEWS... NEWS...

amscene

New CPC Firmware Manual

Amstrad made a lot of people very unhappy when it ceased production of the CPC Firmware Manual. Without this extremely valuable reference work, it's next to impossible for programmers to use their machine's facilities to the full.

The 1-inch thick manual contains indispensible information on theCPC's disk operating system, bank-switching, sound and video chips, ports and more. *Amstrad Action* has, over the past year or so, been inundated with requests for copies of the book, and many people have been advertising privately for second-hand versions.

However, CPC fanatics Bob Taylor and Thomas Defoe have come to the rescue! The details have been passed on to us by Wacci supremo Clive Bellaby, who says: "It's almost as good as the original, it comes complete with a disk or tape full of example programs and costs around £8.75 including the disk (or £7.95 from Wacci.)"

We've just received a copy of the book in the post and can confirm that it really is very well produced indeed. Look out for a full review next issue. In the meantime, you can find out more from one of the authors, Thomas Defoe, on 0279 651487, or Wacci, on 0602 725108.



■ At last! – a replacement for the long-lamented Amstrad Firmware Manual.



SCANNING SERVICE INTRODUCED

Users of Campursoft's *Microdesign Plus* package can now take advantage of a scanning service run by a company called Subtle Changes. Just send the original artwork you want scanned, a blank formatted disk and payment. Cost is 75p per images, with a minimum order charge of £2.50.

Subtle Changes can also print your artwork or text via a Canon laser printer for high-quality results. There is a flat charge per page of £1 (plus postage & packing). If you want to find out any more about these services, call the company on 041 422 1601.

3-inch disks back in production

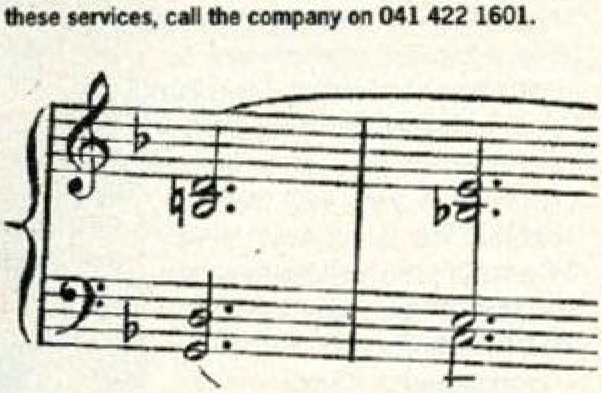
Clive Bellaby also brought us news about a new manufacturer of 3-inch disks. Much general panic was caused when Amsoft ceased manufacture of these disks, with all sorts of rumours about discontinuation of disk products, disk price hikes and other horrors.

Owners of disk machine are already up in arms over the general lack of disk-based software in the shops, but whether that has any connection with the rumours of shortages is unclear. It seems more likeley that retailers are taking a 'lowest common denominator' approach; all CPC owners (excluding the 6128 Plus) can load software from tape, while only half of them can load from disk.

However, while disk-software looks as if it will continue to be scarce, at least the future of 3-inch disks themselves looks secure. A company called Magtron will be producing 3-inch disks in Italy.



■ No more Amsoft 3-inch disks are to be made – but a new maker emerges.



MUSIC TO YOUR EARS?

SD Microsystems is launching a new package for CPC musicians. Called *BooTracker* (it's by 'Boo the Ghost', apparently) is designed to let you produce soundtracks which you can incorporate into your own programs.

BooTracker's features include the following:

- Eight octaves
- Full control over timing
- Three switchable sound channels
- Easy drum synthesis
- Instrument editor
- External interrupt-driven tune driver

The price is £14.95, plus £1 postage and packing Interested? SD Microsystems lives at: PO Box 24, Holbeach, Lincs PE12 7JF. Call on 0406 32252.

technical forum

You can't be serious. Oh, you are? Well, you've come to the right place then. In *Technical Forum* you'll find your questions answered by resident (well, in the next office) technical supremo and novice hamster-juggler Adam Waring, bags of readers' tips and advice, serious products reviewed, a helpline and, as if that weren't enough, a beginner's section where the lovely Alex helps those just starting out on the planet they call Computing.

Whatever you've got on your mind (well, apart from that), drop a line to: Technical Forum, Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

OUTER SPACE

I have a 464 updated with a 6128 chip, two 3-inch disk drives, a ROM box containing *Protext*, *Utopia* and *Maxam 1.5*. I use *Mini Office II* for addressing labels for a society that I belong to. I am experiencing the following problem on which I hope you can throw some light.

I format a disk to Data format, giving 178K bytes available. When I load the Label section of *Mini Office* I create the person's address and print the required amount of labels. I then save the data and each address shows up as a 1K file when catalogued. When I have saved 64 of these 1K addresses I get a 'Disk Full' error message. But CAT shows 114K free. It seems that some unknown data is filling the disk that does not show up on the cat command. Is there away round this problem? Your advice would be very much appreciated as I have a file that contains 200-odd addresses.

H R Nightingale
Godmanchester, Cambs

A **The problem isn't that disk is getting filled up with 'invisible' files, but that the directory of the disk is full.**

The disk operating system only allows for a maximum of 64 files per disk. Though there's plenty of room on the disk, there's simply not enough space to list them.

Storing each address as a separate file is incredibly inefficient. The smallest size a file can be is 1K, yet each file will only need 100 bytes or so. Most of the space is actually wasted. Storing the data in one long file would be a much better way of doing things and would get around the problem of using too many directories.

GOING WACCI

I have just bought a CPC and so far I am very pleased with it. But there are a few things I need to know about it:

1. I was deeply distressed to find that when I bought the computer it only had one joystick port. Now I want to buy a double joystick expansion. Will this work on all two-player games?
2. Will games soon be available for the 3.5-inch disk drive?
3. I am trying to find a place that sells *Wacci* magazine but I cannot find one anywhere. Could you tell me where I might find it for sale or an address where I can send off for a copy?

David Tomlin
Bedhampton, Hants

A

1. A joystick splitter will allow you to use two joysticks on your computer. It will work with all two-player games that specify that they can use two joysticks. Check our mail order advertisers for availability.

2. No, I very much doubt that we shall ever see games on 3.5-inch disks. Only a small minority of owners have a 3.5-inch disk drive whereas all disk drive users can use 3-inch disks.

3. Wacci is not available from any local shops as it is a fanzine. However, you can get a sample copy by sending a 34p stamp to: Wacci, c/o Clive Bellaby, 12 Trafalger Terrace, Long Eaton, Nottingham NG10 1GP. Also check out the Wacci page in this issue.

PC PLUS

I have a 6128 with a CTM664 monitor. I want to buy a PC compatible but I want to use my 6128 for games.

Is it possible to connect the monitor to an Amstrad 1640 or similar and if so would it work as a CGA or VGA monitor?

S Makin
Dover, Kent



Ask Alex...

Hi! It's only little me again here to help you out with your latest batch of beginners' brain-teasers! If all this is new to you, then don't worry – send your questions to me and I'll do my best to sort them out for you.

If you do write to me make sure that the questions are suitably simple – I'm no Amstrad expert, but only aim to help newcomers through the maze of technical jargon that those with a little more experience maybe take for granted. Those complicated questions should be sent to Adam W instead.

Please also remember that I can only reply through the magazine – so please don't send any SAEs. The address is: Ask Alex, Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

IT PAYS TO SAVE

The Amstrad is a great machine for playing games on, but David Hall from Loughborough wants to progress and is having problems saving programs.

Q **"I decided to do one of the *Type Ins* you give in *Amstrad Action*, but when I'd finished typing it in I didn't know how to put it on cassette and the magazine didn't explain it very well."**

A It's quite simple, actually David. You use the SAVE command and it works as follows:

```
SAVE "filename"
```

Alter the filename to be the name of the program. Keep it short,

A Your monitor and the monitors that come with PCs are very different beasts and it would be very difficult to get it to work with a PC; there are just too many differences.

Most PCs actually come as a monitor as standard, and so I think you'd be better off with a purpose-built monitor for that machine.

SERIAL KILLER

I have just sold my CPC464 and Multiface II and bought a CPC6128 and Multiface II. Unfortunately, my new Multiface doesn't load any files that I have saved using my 464 Multiface. Could you tell me, is there any way to get these files loaded?

G Hume
Edinburgh

A Multifaces have a built-in serial number that is saved whenever you save a program to disk using the Multiface. When a program is being loaded it checks this number against the one in the Multiface's ROM and will only load correctly is the numbers match.

This was built in as a safeguard against the device being used for piracy – you couldn't run off countless copies of a game for all your friends because the Multiface that saved the game needs to be present when it loads.

The only thing I can suggest is that you see if you can swap the Multiface you have with the person you sold the original to. Unless other readers can come up with a solution, that is...

TAKING SIDES

Over the last three years I have committed 800 sides of my teaching notes to disk using *Protext*. The college where I work is now being networked using RM Nimbus machines. Is there a cheap and easy way of transferring this information from my 6128 to the Nimbus – preferably allowing me to use my present system at home?

David O'Dell
Worthing, West Sussex

A The answer is... probably. I'm not familiar with the way the Nimbus reads and writes to disk, but if it is compatible with either the CP/M or MS-DOS systems then you'll be in luck.

The main obstacle is getting the Amstrad to read and write to the disks that the Nimbus uses. You'll need to get hold of a second disk drive, either 3.5-inch or 5.25-inch depending on the type of disks that the machine uses, and some software to read the disk formats.

2 in 1 is the best program for reading MS-DOS disks and *Multi File Utility* is tops for transferring between different types of CPM machines. Both are produced by Moonstone computing and are available from the various mail order suppliers that advertise in *AA*

TELLY ADDICT

For a long time now I have had a black and white telly in my room. I was thinking of buying a TV tuner for my monitor instead

though – you're allowed a maximum of 16 characters on tape and 8 on disk.

When saving to tape the computer prompts you to press Record and Play followed by any key. When you've done this your program will proceed to be saved to tape. It may take a couple of minutes, depending on the length of the program, but the computer will let you know when it's done by displaying Ready.

The program can by loaded in the same way as you'd load any game, by either typing RUN "filename" or by using the CTRL and Small ENTER shortcut which will load the first program on the tape it finds.

COMPLETE SPECTRUM

Richard Hall from Brampton has a load of old Spectrum games on his hands and wants to know whether it's possible to use them on his Amstrad.

Q **"I was wondering if you can buy an add-on for the 464 Plus to load Spectrum games."**

A Sorry, Richard, but the answer is no! The computers have different ways of storing their information, displaying graphics and so on. You'd need the best part of an entire Spectrum built into an interface to get anywhere near running the games. It would be a darn sight easier to simply get hold of a Speccy again if you want to play them!

DRIVING AMBITION

Disk drives can be a bit baffling to the newcomer. As well as Amstrad's DDI-1 there are all those high-capacity second disk drives too. This is the cause of M Whitworth's (from Walsall) confusion:

Q **"I have a 464 Plus and I am quite new to computing. I want to connect a disk drive but am quite confused about what to buy. In what advertisement in *AA* it states that a 464 must have a DDI-1 as a first drive. Does this also apply to the 464 Plus?**

"In other adverts they list an FD1 3 inch disk drive and a 3.5 inch Superdrive. Can I buy one of these as a first drive?"

A Well, it's quite confusing, and the 464 Plus doesn't make things any simpler! With the older CPC464 you had to buy a DDI-1 as a first drive because this interface contains the disk operating system – the in-built software that takes control of all the disk operations and gives BASIC the extra commands necessary to save and load to disk rather than tape.

The 464 Plus already has this disk operating system on ROM but (and it's a big but) has nowhere to plug a disk drive into! This means that you have to use the DDI-1 interface to give you the necessary connection points.

However, things are further complicated because plugging this interface in means that there are now two disk operating systems in place. The computer gets terribly confused and refuses to work.

So, to add a disk drive to a 464 Plus you do need a DDI-1 disk drive, but you need one that's been modified so that its internal disk operating is disabled. They are available ready-modified from a number of suppliers, try WAVE, 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR ☏ 0229 8700000.

The FD-1 is in fact just the disk drive part of the DDI-1 and so is only suitable if you have an already modified interface. 3.5-inch disk drives are also only suitable as second drives because, again, you need the DDI-1 interface in place before you can use them.

HELP

Do you have a problem? Well you've got the right section, that's for sure. But it's possible old propellor-head Waring won't be able to help. Although he can sort out all your main techie headaches, he won't be able to find that Firmware Manual for you, or locate a second-hand RS232 interface. That's where *Technical Helpline* comes in.

And there's more! There are lots of you out there with specialist knowledge. You might know all there is to know about programming in BASIC or machine code. Or maybe you know a top software package like *Protext* or *Art Studio* inside out? If so, don't be shy! You can share all your hard-earned knowledge with less experienced readers by sending your name, phone number and area of expertise to this sectio. You won't win any money, but you will win lots of gratitude!

Don't forget to include your phone number – sorry, we're unable to print addresses. Send your entry to: **Technical Helpline, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW**

I need a CPC6128 TV modulator. Will swap for *Kick Off Collection*, other games, or green screen monitor.
Wayne, 071-700 0715

I have a 3.5-inch second disk drive but need a formatter for it. Can anyone help? I will pay expenses.
Alan, 061-620 1680 after 4pm

Wanted: Disk drive for 464 Plus, two-way port expansion, Wave Widget, 64K RAM expansion. Will exchange for Atari VCS Games System plus games and two joysticks.
Sue, 0501 41803

Wanted: CPC6128 circuit diagram or part circuit of REM control section. Also circuit for camcorder to CPC digitiser.
Jack, 061-775 8444

I need the Microtext Teletext adaptor, tuner and software for my Amstrad CPC 6128. Reasonable price paid.
Jan Balling, Baunevej 139, DK-2630 Taastrup, Denmark

SOFT 968 wanted to borrow, buy etc. I'll pay just to lend it for the week, so please somebody, this is an opportunity to make money for nothing.
Paul, 0446 736529 after 6pm

top tips

Feeling in a helpful mood? You could help your granny across the road or wash your dad's car for him or even do the washing up. But to be really helpful you could send your tips, advice and mini-programs to *Top Tips* and help thousands of Amstrad users out there.

Who knows, you may even find yourself ten pounds better off into the bargain. (Then again, you might not...) Send your entries to: Top Tips, Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

DISASSEMBLY FILE

WINNER! £10

I think I can help Neil Stewart (*Forum, AA77*). Type in the following program to disassemble code into an ASCII file:

```
10 MEMORY HIMEM-11
20 |ASSEMBLE
30 'patch push ix:push hl:call &bc95
40 'pop hl:pop ix:scf:ret
50 'limit &ffff:org &bd2b:jp patch
60 OPENOUT "file"
70 |M
```

Run the program and then use the DP option to disassemble the code. The end address must be specified – do not use Escape to abort the disassembly. The program will create an ASCII file which can then be loaded into a word processor or the MAXAM text editor.

To strip off all the characters before the mnemonic field, use this program:

```
10 OPENIN "file"
20 OPENOUT "newfile"
30 WHILE NOT EOF
40 LINE INPUT #9,a$:PRINT#9,MID$(a$,23)
50 WEND
60 CLOSEIN:CLOSEOUT
```

George Lovell
Peterborough

SECOND DRIVE *TASWORD*

WINNER! £10

Here are a couple of short programs that allow *Tasword 464D* to be used on a second disk drive. It works fine on my 3.5-inch disk drive, except that you may have to ignore the "Drive is A" message when you know full well it's B!

To convert the program, firstly copy all the *Tasword* files onto your second drive. Then, leaving the original disk in the drive, type in the first program and run it. Reset your machine and do

of buying a colour TV.

My question is, would it be possible for me to make my own? I have an old VCR and these have tuners built in. I am quite handy with a soldering iron.

Daniel Johnson
London

The problem is that videos almost always have a video signal output, while your monitor expects an RGB signal. Converting between the two is complicated and would probably work out to be more expensive than buying a TV tuner, especially as they are available for some pretty bargain prices at the moment. WAVE has been selling them recently for around £25. Get in contact with the company at WAVE, 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR ☏ 0229 870000.

WITHOUT A PADDLE

I own a CPC6128 and will also be getting an Amiga. I have a number of questions I would like to ask you:

1. Is the GX4000 paddle (the flat controller thingy) totally compatible with my 6128?
2. And if so, will I be able to pass it on to the Amiga I'm getting?
3. To make loading the *Action Pack* games easier from disk, I would like to be able to run them straight from BASIC. Is there any way to do this?
4. I missed out on *AA61* because the newsagents had sold out. Had I missed anything extra-special?
5. How do you save fonts like *Advanced Art Studio* does, but without using *Advanced Art Studio?*

Richard Collins
Sandford, Dorset

1. The GX4000's joypad is completely compatible with the 6128. No problems.

2. Yes, the Amiga's joystick is wired up in exactly the same way as the Amstrad's. You shouldn't have any problems.

3. I'm afraid that you'll have to use the menu program to load games from the cover tape. Special loading routines have been built-in to the menu and the games won't load without them.

4. Every issue of AA is extra special, you should know that Richard! Issue 61 is completely sold out now, but should you miss any other issues in future you can obtain them via our back issues department. Check out the subscriptions page for details of how to order these.

5. You can define your own fonts with the SYMBOL and SYMBOL AFTER commands. The SYMBOL command needs nine bytes of information, the number of the character you wish to re-define plus eight bytes that make up the new character matrix. The SYMBOL AFTER command tells the computer to reserve some memory to hold your new characters. This example re-defines the space character into a chessboard pattern:

```
10 SYMBOL AFTER 32
20 SYMBOL 32,170,85,170,85,170,85,170,85
30 PRINT " "
```

SECOND DRIVE

I read the review about Siren Software's 3.5-inch disk drive for the 6128 and 464 in *AA75*, but all the information about fitting was for the 6128.

I own a 464 with a mouse, memory upgrade and a DDI-1 disk drive and was wondering whether I could connect the 3.5-inch drive to the disk drive lead that comes supplied with the DDI-1 interface.

Also, is it possible to use double density 3.5 inch disks with the disk drive?

Ian Jeffery
Tunbridge Wells, Kent

There shouldn't be any problems; just specify that your machine is a 464 so that Siren will be able to supply the appropriate lead. You can get in touch with the company at: Siren Software, Wilton House, Bury Road,

review

8-bit Printer Port

£24.95 ● GOLDMARK SYSTEMS, 51 COMET ROAD, HATFIELD, HERTFORDSHIRE AL10 0SY ☏ 0707 271529

One of the fundamental problems with the design of the CPC is its printer port. For some unfathomable reason Amstrad produced the machine with a 7-bit printer port.

What this means is that only half the Amstrad's character set can be printed out to the printer. Why? Surely it can't have saved that much money having one wire disconnected inside the machine? Still, ours is not to reason why. A 7-bit port it is.

But it doesn't have to be. Not if you get hold of a Goldmark 8-bit printer port, that is. This little box of tricks puts the missing bit back. Now you can print the full character set and more – some graphics programs have difficulty producing worthwhile output as the missing bit means that not all the information is sent to the printer.

The port comes in the guise of a printer cable with a small piece of circuit board about six inches away from where the cable plugs into the computer. The cable is quite long – about 1.5 metres – and replaces the standard printer cable. (Normally you would have to buy an additional printer cable even if one was supplied with the printer, as the Amstrad circuit board connector is non-standard. These can cost anything up to a tenner on their own.)

In addition to this, the cable has several pins discon-

Plus points

You won't need an 8-bit printer port if you own one of the Plus machines. Amstrad wised up when they redesigned the CPC as the Plus and the computer now comes with a full 8-bit computer port as standard.

In fact, you'd have little luck if you tried to plug the device into a Plus as the CPC's edge connector printer port has been replaced by a more robust (and completely incompatible) connector.

Radcliffe, Manchester M26 9UR ☎ 061-724 7572.

DUMPING SCREENS

I am the proud owner of a CPC464 and a regular subscriber to *Amstrad Action*. Could you please answer my one and only question?

Is there a screen dump which will work on arcade adventure games, i.e. *Rick Dangerous* and *Rick Dangerous II*? I usually draw everything on paper and it gets a bit fiddly going through scores of scraps of sheets.

E Marsh
Manton, Notts

First of all you,ll need some method of 'grabbing' the screens and saving them. The best device for this is something like a Multiface, where you can freeze the game at a press of a button and then save it out to tape or disk. Contact: Romantic Robot, 54 Deanscroft Avenue, London NW9 8EN % 081-200 8870

Once you've done that, you'll need a screen dumping program, one that can interpret the Multiface file and send it to the printer. The only one I'm aware of that is *Colourdump 3* from MJC supplies. This is a new program that has been designed to work with colour printers, though MJC may be able to offer advice if you have a black and white printer. The address is: MJC Supplies, Unit 2, The Arches, Icknield Way, Letchworth, Herts SG6 1UJ ☎ 0642 481166.

ROM FOR IMPROVEMENT

I am thinking of buying a 40025 upgrade ROM to turn my 464 into a 6128 and have a few questions about it.

1. Can you plug the ROM into a ROM box or does it have to be placed inside the computer?
2. Are there any commands or features that the 464 has that would be lost inserting the upgrade ROM?
3. Where is it available from?
4. Is the 6128 manual still available or are there any other books that detail the extra commands?

Daniel Bettesworth
Dursley, Glos

1. The upgrade ROM needs to be plugged into the main circuit board in place of the existing 464 ROM. It's quite a simple job, though, and doesn't require any soldering or anything like that. Full fitting instructions accompany the ROM so you shouldn't have too many problems.
2. No you won't loose out on any commands as the 6128 has all the commands that the 464 has, plus a few more for good measure.
3. Try the various mail order suppliers that advertise in AA. If you're stuck, WAVE stocks them. Contact: WAVE, 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR ☎ 0229 8700000.
4. Why not try getting hold of a manual through our techie helpline? There may be someone out there just itching to swap/sell you one.

FOLLOW MY LEAD

I have just bought a second-hand CPC6128 and a CTM644 monitor at the ripe old age of 60 (me that is). I've also bought *Mini Office II* and am slowly getting to grips with it.

I have also been given an Amstrad DMP3160 printer, but is it compatible? I don't have a lead for the printer either. Can you advise?

A Price
Carnetown, Mid Glamorgan

You should have no compatability problems with the printer and your computer. What you need is a PL-1 lead or equivalent. Check out the ads in AA or try a local computer store. ■

top tips

the same with program two. Reset again and run Tasword by typing IB:RUN "TASWORD"

```
1 REM Program 1
3 REM by Simon Avery 1992 with help from
Mark Riley
4 IA
5 CLS
6 PRINT "This program converts Tasword
464D to run on a second disk drive"
7 PRINT "Please copy all Tasword files
to drive B first, then press a key"
10 MEMORY &14FF
20 LOAD _tasctrl.bin
30 POKE &1648,&42
40 POKE &1656,&42
50 POKE &1664,&42
60 SAVE "tasctrl.bin",b,&1500,&D00
```

```
1 REM Program 2
3 REM by Simon Avery 1992 with help from
Mark Riley
5 IA
8 CLS:PRINT "Please Wait..."
10 MEMORY &4FFF
20 LOAD "tascode1.bin"
30 POKE &555C,&42
40 POKE &65FA,&42
50 POKE &77EA,&42
60 IB
70 SAVE "tascode1.bin",b,&5000,&2A00
```

Simon Avery
Chudleigh, Devon

PROGRAMMERS' LIB

You made available our *RSX-LIB* utility on a recent covertape and your readers might be interested in the following:

1. In the magazine you neglected to print the name of the de-archiving program (which was written especially for the covertape and is not mentioned in the manual) – some readers have experienced difficulties as a result.

After you have transferred all the files from the tape onto disk the first thing you should do is run SPLIT.52 which will split the file 'Bulk.52' into 52 individual binary files (full on-screen instructions are provided).

2. The colours used in RSX-LIB cannot be changed from within the program, but should you want to alter them, then you can use the following method:

```
10 pa=4:pe=26
20 BODER pa:ink 0,pa:ink 1,pe
30 CHAIN "RSXLIB-M."
40 SAVE "RSXLIB-M."
```

In this example the background is set to magenta and the foreground to bright white.

Ian Napier
Smogware Systems
New Costessey, Norwich

---

nected. This saves you from the dreaded 'pin-14 syndrome'. Another anomaly in the design of the printer port means that some printers mis-interpret the computer's output and print a large gap between every line of text. No amount of messing around with dip switches or control codes will put it right and the only cure is to physically disconnect the offending pin by snipping the wire in the cable. Goldmark's lead saves you going through those hassles.

The printer port is initialised by running a small piece of code before printing anything. This tells the computer what's what, and anything printed from then onwards will come out with its full complement of eight bits. The program has to be typed in initially – it's not supplied on disk or tape – which is a little bit of a pain but only has to be done the once and no doubt keeps the costs down.

An example of printed output comes with the port just to prove it works and also contains that vital listing to get it working in the first place.

Should you not require eight bits of output then the computer will print out normally with the cable in place if you don't run the software.

The port performed well with all the software we tried it with. We were able to print accented characters, line and block graphics to out hearts' content. Note that the extra characters available won't be those that the Amstrad has, but those in the printer, though many printers will allow you to download redefined character sets.

At £25 the 8-bit port not excessively expensive, especially as it gets around the need to buy an additional printer cable. And Goldmark's little piece of electronics hasn't really got any competition. KDS used to produce a printer port, but that's no longer available. The question is, do you actually want one?

The majority of people will be able to get by without an 8-bit printer port. It's useful, sure, but not necessary for the printing of simple documents that most people use their printers for.

good news

- The interface is built into the printer lead
- Works with all the word processors and software packages we tried

bad news

- Controlling software needs to be typed in

78%
VERDICT

The Wacci Page

Welcome to the Wacci page! This is the bit of *Amstrad Action* we give over to those serious types at Wacci. Clive Bellaby is your host as the Wacci crew brings another set of tales from the dark side of the CPC...

DOS USER DOS OR DOS USER DON'T USE ROMDOS?

OK. So you've got the *Art Studio* running with ROMDOS and you're enjoying the vast storage capacity of a ROMDOS format disk. "Yes, but when I catalogue the disk from the *Art Studio* it doesn't show all the screen files that I've saved!", I hear someone say. (*Not me. Did you say anything, Adam? – Ed*)

"Limited buffer size", I reply, "What you need is a good dose of... User Area Relocation".

So let's get serious. When you select <Catalogue disc> from one of the *Art Studio's* Filing Menus, the relevant filenames, from the disk in the currently selected drive, are stored in an area of memory set aside for the purpose. Each filename is given a drive prefix (A: or B:) to aid identification. Catalogue a disk in the other drive and the new filenames will be added to those already in store.

With 178K capacity disks, this buffer is more than adequate, but add a 792K capacity disk (something which was not expected when the program was written) and it's quite possible to fill the buffer, and more besides. At best this will result in some files "disappearing" or at worst, cause a very nasty crash.

To avoid this potential disaster, we need to make use of USER AREAS. Not a popular subject, I know, probably due to the fact that they seem totally unnecessary when dealing with 178K capacity disks. But, with a possible 256 files on a D20 format (792K) disk, splitting the directory into manageable chunks makes a lot of sense. The problem is that the *Art Studio* does not have the facility to change from one User Area to another. Until now...

A little investigative work with a Multiface reveals that the *Art Studio* makes use of the firmware routine KM_READ_KEY (at &BB1B) to interrogate the keyboard when <Enter Filename> is selected from the Filing Menus. If we can intercept this routine then we can use it to enter a User Number instead of a filename, provided a "special" key is pressed first. And that is exactly what the poke below does. Use it to load the *Art Studio* instead of STUDIO.BAS and you will be able to select User Areas 0 to 9 as follows:-

1. Select <Enter Filename> from the Filing Menus.
2. Press the COPY key. (You will hear a beep)
3. Enter a User Number. (Use the numeric keys)

All filing operations will use the selected User Area for both drives. Unfortunately the *Art Studio* does not display the currently selected User Area so it is up to you to exercise due care and attention when loading and saving files.

Next month we'll see how this poke works in greater detail by having a look at the source code listing. And finally, a word of apology to all those of you who typed in the previous loader but it was only after I had written it that the idea for this new loader occured to me.

By Jess Harpur, Campursoft & WACCI

(Note, Jess is the UR in campURsft, Peter Campbell is the CAMP from CAMPursoft. If you're wondering where the soft comes from, that's easy as well, it's from all the ZX81 owners, they're all a bit soft.)

```
10 'ART STUDIO loader for ROMDOS
20 'Mk.2
30 'Replaces STUDIO.BAS
40 '(c) Jess Harpur 1992
50 '
60 MEMORY &8FFF:addr=&9000
70 READ a$
80 IF a$="end" THEN CALL &9000
90 POKE addr,VAL("&"+a$)
100 addr=addr+1:GOTO 70
110 DATA 21,29,90,06,0A,11,00,08
120 DATA CD,77,BC,D2,00,00,21,00
130 DATA 00,CD,83,BC,D2,00,00,CD
140 DATA 7A,BC,2A,7D,BE,7E,32,44
150 DATA 90,21,33,90,0E,FF,C3,16
160 DATA BD,53,54,55,44,49,4F,2E
170 DATA 42,49,4E,21,FF,AB,11,40
180 DATA 00,0E,07,CD,CE,BC,0E
190 DATA 01 'Romdos Slot Number
200 DATA CD,CE,BC,3E,00,2A,7D,BE
210 DATA 77,21,1B,BB,E5,11,00,BF
220 DATA 01,03,00,ED,B0,E1,36,C3
230 DATA 23,73,23,72,21,67,90,01
240 DATA 36,00,ED,B0,C3,06,09,CD
250 DATA 00,BF,D0,FE,E0,20,2C,C5
260 DATA D5,E5,3E,07,CD,5A,BB,CD
270 DATA 09,BB,30,FB,06,19,CD,19
280 DATA BD,10,FB,CD,A7,BC,CD,18
290 DATA BB,D6,30,38,F9,FE,0A,30
300 DATA F5,2A,7D,BE,23,77,E1,D1
310 DATA C1,3E,0D,37,C9,end
```

WACCI - The Club

WACCI is a CPC user group with over 400 club members (and is still growing). It produces a 32 page, 27000 word monthly magazine covering such diverse topics as programming (Basic, Machine code and Forth), reviews of commercial and public domain software, members letters and comms.

WACCI also runs a bulletin board (0252 318557), which is open 24 hours a day to both members and non-members.

WACCI costs £1.50 per issue: for a 'free' sample copy send a 34p stamp and your name and address to WACCI, c/o Clive Bellaby, 12 Trafalger Terrace, Long Eaton, Nottingham, NG10 1GP

WACCI's top ten serious products

We hope you enjoyed Jess Harpur's piece about large format disks and *OCP Art Studio*, becaue We've twisted his arm and asked him to do a follow up piece. Afterfter all, he and Peter Campbell probably know more about art programs than anyone else I've met – they did manage to fully upgrade *MicoDesign*...

The two most popular questions following last month's piece about *Art Studio* and large format disks were: "Hoi, you, how do you pronounce WACCI" and "Wot's this here WACCI stand for". So I'll deal with these first. WACCI is pronounced Wacky and WACCI does not stand for anything, it's a name, no more, no less. Sorry, if that's a let down, I'll give a different answer, WACCI stands for the Worldwide Amstrad Computer Club Inc. This answer's a lie, but if it makes you happy...

CHANGES IN THE PD SCENE

The last year or so has seen a major change in the presentation of public domain software. Gone are the poor quality disks, stuffed full of untested and undocumented programs, and a standard 'hard luck,you brought it your figure it' out disclaimer. Todays PD libraries will only supply fully tested, fully documented programs, and they provide loads of help if you get stuck.

Take as an example, the NPS Cobol compiler. For years the program consisted of the compiler and a few short notes.... Over the past year, the program has been fully documentated, example programs added, two completed working programs written and there's even a complete 'teach yourself to program in Cobol series on the disk'. Who could ask for anything more.

ALL FORMATS FAIRS

If you're interested in buying loads of CPC stuff at bargain prices then get along to the 'All Formats' Computer Fairs. No only will yoy get a bargain, you'll probably get to meet me (Clive Bellaby) as well. (Who said life was fair?) WACCI always attends the London, Birmingham, Haydock Park, Donington Park and Glasgow FAirs. Why not come along and discuss your problems...

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mastering machine code

Welcome to another instalment of *Mastering Machine Code*. This month is the last theory lesson, in which we discuss how to use the joystick and keyboard more effectively from machine code. Next month creative programming starts as *Amstrad Action* shows you how to write games in machine code... ANDY PRICE kick starts his assembler for another intriguing instalment.

Well, ladies and gentlemen, you will be pleased to know that most of the aspects of machine code which I wanted to explain to you have been dealt with, except one – input devices. How could you possibly write a game or some useful piece of code (by useful, I mean excluding demos) without using the keyboard or a joystick? You can't, which is where this month's tutorial comes in...

The joystick – a game player's tool! Joysticks come in many and weird shapes but they all have one thing in common, they all use the same input method. This can be very handy indeed from the Amstrad's point of view, and from ours. But how do we incorporate the joystick's input into our programs? Simple, we use our old friend the Firmware.

The CALL we are interested in is &BB24, which is used for the joystick's input. When called, the A register's bits mean the following (when Not Zero NZ):

bit 0 – up
bit 1 – down
bit 2 – left
bit 3 – right
bit 4 – fire 2
bit 5 – fire 1

For those of you who prefer an example on how to put this into machine code, see **Listing One**. This is a joystick test program which tells you what your joystick is doing, i.e. whether it's pressed up or down or firing. When using *Devpac*, I recommend assembling your code to disk and running it from a fresh memory. For some reason, *Devpac* keeps crashing on me. Maybe it is because I like MAXAM better, or maybe it is because I have no patience or maybe it is because I keep saying naughty phrases to it. (*Get on with it – ed*)

The keyboard – everyone's tool. The keyboard is also accessed using the firmware, but it is much less hassle. I may have explained this before, but this time try amending listing one to work with the cursor keys using COPY as Fire instead of the keyboard. Look in your computer's user manual at the back for the keyboard codes (464, 664), or on your disk drive (6128).

The firmware address is &BB09 and if a character was available, the CARRY flag is SET to true and the A register holds the character. See the first few lines of the section of code beginning with label LOOP for a demo on how to use it.

• Don't forget – next month the programming starts in earnest!

Starting next issue...

Next month we start designing and writing a game, and Rod says it may well go on the covertape (*yeah, but it'd better be good! – ed*). This means that I can add really elaborate pieces of coding to it and make it a really big game. I am just in the design stage at the moment and it will take me between now and next month to design every screen and sprite and then to start the programming. I am not giving any secrets away, so you will have to wait until next month to find out what the game is and what it entails... but the final result will be STARTLING!

LISTING ONE – JOYSTICK TESTING PROGRAM

```
          ORG &8000
          ENT $

          ; Joystick Testing Program
          ; by ANDY PRICE
          ; Mastering Machine Code
          ; For use in games, etc

          LD A,1
          CALL &BC0E    ; Screen MODE 1
          JP UP

EXLOP:    LD DE,MESS    ; Place titles on screen
          CALL PRINT
          LD DE,MES1
          CALL PRINT

LOOP:     CALL &BC09    ; Test keyboard input
          CP 13         ; Enter pressed to end prog?
          RET Z         ; end of yes
          CALL &BC24    ; Get Joystick status
          BIT 0,A
          JR NZ,AUP
          BIT 1,A
          JR NZ,ADOWN
          BIT 2,A
          JR NZ,ALEFT
          BIT 3,A
          JR NZ,ARIGHT
          BIT 4,A
          JR NZ,AFIRE2
          BIT 5,A
          JR NZ,AFIRE1
          JR LOOP       ; Continuous loop until enter
                        ; is pressed

UP:       LD DE,TUP     ; Set up screen with joystick
                        ; positions
          CALL PRINT
DOWN:     LD DE,TDOWN
          CALL PRINT
LEFT:     LD DE,TLEFT
          CALL PRINT
RIGHT:    LD DE,TRIGHT
          CALL PRINT
FIRE2:    LD DE,TFIRE2
          CALL PRINT
FIRE1:    LD DE,TFIRE1
          CALL PRINT
          JP EXLOP

AUP:      LD DE,EUP     ; Highlight Joystick position
                        ; then
          CALL PRINT    ; unhighlight it
          LD DE,TUP
          CALL PRINT
          JP LOOP

ADOWN:    LD DE,EDOWN
          CALL PRINT
          LD DE,TDOWN
          CALL PRINT
          JP LOOP

ALEFT:    LD DE,ELEFT
          CALL PRINT
          LD DE,TLEFT
          CALL PRINT
          JP LOOP

ARIGHT:   LD DE,ERIGHT
          CALL PRINT
          LD DE,TRIGHT
          CALL PRINT
          JP LOOP

AFIRE2:   LD DE,EFIRE2
          CALL PRINT
          LD DE,TFIRE2
          CALL PRINT
          JP LOOP

AFIRE1:   LD DE,EFIRE1
          CALL PRINT
          LD DE,TFIRE1
          CALL PRINT
          JP LOOP

PRINT:    LD A,(DE)     ; Routine to print string,
                        ; address in DE
          OR A          ; if string terminator found
                        ; (&00) then
          RET Z         ; return to where called from
          CALL &BB5A
          INC DE
          JR PRINT

; String data

TUP:      DEFB 31,19,5  ; 31 is control code for
                        ; LOCATE
          DEFM "UP"
          DEFB 0        ; string terminator
TDOWN:    DEFB 31,18,10
          DEFM "DOWN"
          DEFB 0
TLEFT:    DEFB 31,10,8
          DEFM "LEFT"
          DEFB 0
TRIGHT:   DEFB 31,26,8
          DEFM "RIGHT"
          DEFB 0
TFIRE2:   DEFB 31,17,7
          DEFM "FIRE2"
          DEFB 0
TFIRE1:   DEFB 31,17,8
          DEFM "FIRE1"
          DEFB 0

; Highlighted versions of the text

EUP:      DEFB 31,19,5,&18
          DEFM "UP"
          DEFB &18,0
EDOWN:    DEFB 31,18,10,&18
          DEFM "DOWN"
          DEFB &18,0
ELEFT:    DEFB 31,10,8,&18
          DEFM "LEFT"
          DEFB &18,0
ERIGHT:   DEFB 31,26,8,&18
          DEFM "RIGHT"
          DEFB &18,0
EFIRE2:   DEFB 31,17,7,&18
          DEFM "FIRE2"
          DEFB &18,0
EFIRE1:   DEFB 31,17,8,&18
          DEFM "FIRE1"
          DEFB &18,0

; Screen titles

MESS:     DEFB 31,13,20,&18
          DEFM "PRESS ENTER TO END"
          DEFB &18,0
MES1:     DEFB 31,1,1,&18
          DEFM "JOYSTICK TESTER BY ANDY PRICE"
          DEFB &18,0
```

Welcome to ACTION TEST...



■ Doooo... dum-do dum-do dum-do, do dum-do dum-do dum-do, it's the Addams Family (we don't know the other words).



■ So brilliant we can't stop playing it! We just hope this jumping lark doesn't rub off...



■ The arcade original had graphics fr the space-age. The CPC version gets th from the stone-age...



■ Bored by loading? Play Mastermind while you wait!

RESCUE FROM ATLANTIS

ALTERNATIVE • 0977 797777 • £3.99 CASSETTE

Mastermind. Now there's a classic. But what's it got to do with a game called *Rescue from Atlantis*? More than you might think, actually. Because even when the game's still loading you can indulge in a spot of brain teasing with your Amstrad. As the game loads you can play a version where you have to guess the hidden code. Clever, eh?

Onto the game itself. As you'd expect, it's set in the legendary subterranean city of Atlantis. What's more it's full of aliens; strange web-fingered creatures that eat lots of fish.

Kill the lot of 'em, I say. It's the best thing for it. You're just the psychopath for the job and so down you go in your bathysphere to sort 'em out. Luckily your wristwatch is water resistant to 30 metres too.

There are three levels to swim and kill your way through. But it's not just a case of splashing in there, doing the business and getting back home in time for tea, oh no me deario. It'll be a long time before you even make it past Level One.

In this first part you have to locate the entrance to the underground town (which is located within a sunken galleon – how do they all fit in there?). They aren't expecting visitors, and so you'll need to find something to bash your way through the ship's hull. But before you even catch a glimpse of the slimy sea-dwellers you'll encounter many of nature's more, er, natural underwater inhabitants. Now normally the only dilemma you'd face when confronted with a cod is whether to sprinkle salt, vinegar and ketchup on it. But these fish are dead hard and can be a hazard to your health even when sliding past you in the 'safety' of your little sub.

Your energy bar is drained steadily when in contact with a creature. In fact it's so hard to avoid the creatures that one minute you'll be drifting along, exploring some as yet undiscovered cavern, and the next minute you'll be dead as a dolphin who fancied a bit of tuna for supper.

To make progress you move around in your bathysphere, exiting occasionally to collect bits of equipment from places that it can't reach. Lots of objects are needed to get through, but you can only carry a maximum of three and the sub can just about squeeze in nine. You'll often be left wondering what you should take.

There's a huge playing area to explore, and presumably the other two levels offer equally large discoveries. Unfortunately it's too tough, and you may never get to see them.

Adam W

SECOND OPINION

"The other two levels may be brilliant, but you'll never get off Level One! In fact, playing Mastermind during loading is the best bit..."

ROD LAWTON



■ Look a bit stupid, don't you? That's 'cos you're in a bathysphere, fool! Now you've got to go and find something to help you smash through a galleon's hull... (well, go on then!)

FIRST DAY TARGET SCORE

Get into the galleon!

graphics 78%
Colourful and quick-moving. Some of the fish are a bit dodgy though.

sonics 67%
The tune's OK, but nothing to write to your pen pal about.

grab factor 74%
Gosh, what a lot there is to do and explore.

staying power 62%
Incredibly frustrating – it's too hard to avoid getting killed.

78% VERDICT

LEFT IN THE LURCH?

walk this way

If you manage to find the red key, and you know which doors it opens, then you might just be able to rescue your faithful butler Lurch. But it's not going to be easy... in fact it's flipping frustrating. Not only do you have to survive timing puzzles that will make you scream, you also then have to survive for 60 seconds in a special, almost indescribably horrible, room before Lurch is freed.



1 If you want to rescue Lurch, the first thing you're going to have to do is find the red key...



2 With the key, you'll be able to step through the door at the far left of the graveyard – to here.



3 Keep an eye on that whizzing blue cloud (top). Time this carefully or you're dead!

mastergame

THE ADD

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■ Well, you've got past Mr Pumpkin-Head (top right) so it's plain sailing to the doorway.



■ You can jump, but you can't hide... though you can bounce on those skulls to stun them.

Oh no, the entire Addams Family has been imprisoned! Well, all except for Gomez, that is. And it's up to Gomez to try to rescue them.

It gets stranger yet, though. Morticia, Pugsley, Wednesday, Granny, Lurch and Thing have all been imprisoned in their own house! Chez Addams is a bit of a sprawling mess, frankly – in fact the house, grounds and dungeons make up a total of over 240 screens (no wonder the program is 128K only).

With a house that size, it's no wonder Gomez sometimes has trouble finding his way around. What makes it worse is that some of the doors in the house are locked. What makes it worse still is that Gomez doesn't (to start with) have any of the keys. And what makes it worse than an impossibly awful thing is that he doesn't know where any of the keys are!

Well, if by now you're thinking that Gomez is a bit thick (he is), you can rest assured that's he's pretty agile and extremely persistent (you get nine lives plus four Continues on the Easy setting). Gomez needs all this agility because he has to jump over, onto and around various creepy, crawly, jumpy, chomping things which are infesting his house. He can kill some of these creatures by jumping on them, but others are best avoided altogether.

What we've got here is an explore-em-up of nightmare proportions. Some 240 rooms joined (or not joined) by doors which can only be unlocked by specific keys which may themselves lie behind doors which can only be unlocked by... etc etc.

There's not much point trying to get anywhere without drawing a map as you go along. You soon become disoriented and you step through one doorway after another and without a map you'll just end up going round in circles or – more importantly – missing important exits to new rooms.

Keys aren't the only things you can pick up. A row of hearts along the bottom of the screen tells you how much life you have left. This goes down pretty slowly, though, and

SECOND OPINION

"If you're the impatient type, you might want to give this one a miss. It's so frustratingly difficult I ran out of the office screaming after an hour."

ADAM PETERS



■ Yes, well, we'll leave that, I think. That dirty great spike (centre) looks a bit sharp.



■ Look, look, a heart! (Left) Getting past those two bouncing balls looks a bit dodgy, though.

freeze frame

SINK OR SWIM!

There are a few surprises in the Addams Family chateau. Bet you never knew they had a jacuzzi! Gomez (**1**) has just gained access to the bathroom through this doorway (**2**) thanks to his red key (**3**). Now he has to jump on the knight (**4**) to gain enough height to reach the pot (**5**) and from there the platform. Mind the spikes that come up through the floor (**6**)! From here he has to jump off the platform and into the water (**7**), avoiding the submarines (**8**) and plughole (or jacuzzi orifice?) (**9**) to grab the bonus (**10**) and bump up his number of lives (**11**).







4 You can avoid this blue cloud OK, but that stopping stone (bottom centre) has a spike in it...



5 This bit is horrible. The blue cloud is bad enough, but the plant also spits at you. Nightmare!



6 Nasty. There's Lurch, but you've got to dodge the cloud and hop on the moving pots to get to him.



7 Done it! Now all you have to do is survive for 60 seconds in this room. That 'floor' is a mass of spikes!

MS FAMILY

FIRST DAY TARGET SCORE

Find Lurch

you're much more likely to cop it from bumping into a nastie than running out of time. However, if you stay alive long enough you may need one of the replacement hearts scattered throughout the rooms.

You should also keep an eye open for extra life tokens. These are much more useful. (Yes, you need a lot of lives.) To pick up the bonuses, just jump on them.

If you persevere long enough, and get very, very good, you may actually stumble across a member of your family (we found Lurch). To rescue them you have to jump on their heads (not very sociable, but it seems to work). You're then transported to a special screen where you simply have to stay alive for 60 seconds... you'd have more luck crossing the M25 blindfolded. Your incarcerated buddie is only released if you pass this survival test.

The Addams Family is a huge, tough and frustrating game. It consists almost entirely of wickedly difficult timing puzzles. Just as you think you've got through the most difficult room possible, you come to a harder one still. What makes it worse is that the baddies don't stay dead. You can clear a screen completely, but you only have to step out of it for a moment and then step back in, and all those monsters have reappeared. This can get a bit frustrating because, as you explore the Addams mansion, there's a lot of backtracking to do.

It's the frustration, the weary plodding and the sheer, relentless difficulty (even on the Easy setting) that finally get to you. You can play for hours, searching every nook and cranny for keys, dying endlessly and getting hopelessly lost – without actually making any progress at all. This is not a game for wimps. But set against that the enormous challenge, plus the incentive to explore ever deeper into the huge depths of the house and you've got a super-toughie that will keep you hooked for ages.



■ That pot travels from side to side, but maybe it's how you get across this room...?



■ Horrors! Those things which look like tomatoes (but aren't) bounce up and down.

With over 240 screens, each of which has its own nasty, vicious, evil puzzles, *The Addams Family* is almost too big and too tough for its own good. Almost, but not quite...

Rod Lawton



■ This is just inside the front door. Uh oh, and it looks like a rather unfriendly reception committee. Jump on their heads, though, and they're history.



■ Aaaarrrggggh! See what happens when you stand on some nasty white spiky things! Riding around on those airborne pots isn't as easy as it looks.

graphics **82%**
Colourful and atmospheric – animation is fast and smooth

sonics **70%**
The title music is great, while the in-game effects just do the bizz

grab factor **84%**
Disappointing to find you can't shoot things! (You get over it, though).

staying power **95%**
A stupendously huge game that will drive you potty

90%
VERDICT



Hmm, this is a level for the blockers. Without them there'd be a lot of plummetting.



Breakthrough! An angry mob of lemmings hurtles towards the exit. Out of the way, grandma.



A smigeon of building and a lot of walking, and it's another level we've wrapped up.



Whee. oh dear, we seem to have given away another of the covertape levels. Oops.

Lemmings



PSYGNOSIS • £15.99 CASSETTE, £19.99 DISK

What a nice change. A game where the idea is to save lives, rather than destroy them. A puzzle game with a healthy dose of platforming and arcadey action. A game that has already made history on other computers, and is about to do the same on the CPC.

Lemmings is a furiously addictive escapade that puts you 'in charge' of a posse of sweet, but stupid, little mammals. These mammals (called, strangely enough, lemmings) fall one by one from a trap door in the ceiling. Their target is a stone clad archway elsewhere on the level. Getting them there, without losing more than the specified number, is the aim of the game.

Various obstacles present themselves and you have to try and get your little friends past them all. There are various functions that can be bestowed on the lemmings, and these appear as icons at the bottom of the screen. Selecting the right combination of functions is the only way to solve the puzzles.

So how does it differ from the 16-bit versions? Well, it's smaller. The Amiga version has got over 160 levels, and the CPC versh has nowhere near that many. A rival magazine recently announced that there were 80 levels in the game, and they then went on to compound the embarrassment by setting a competition where "how many levels are there in CPC *Lemmings*?" was the question. Whoops! If you believed their review, you got the answer wrong. There are actually only 60 levels in this game, and these are divided into four batches of fifteen (Fun, Tricky, Taxing and Mayhem).

Some of the levels are shorter than their 16-bit compatriots, and a few puzzles have been left out because they were too complex. People who have experience of 16-bit *Lemmings* might notice another difference, that of the control method. The expensive machine versions use a mouse, whereas the CPC versh is joystick-controlled. This means that it's less a case of whizzing round



These chaps seem to be in a bit of a hurry to leap into the game zone. Strange really, considering they've only got a big wall to walk into. A speedy bit of bashing or mining, we reckon.

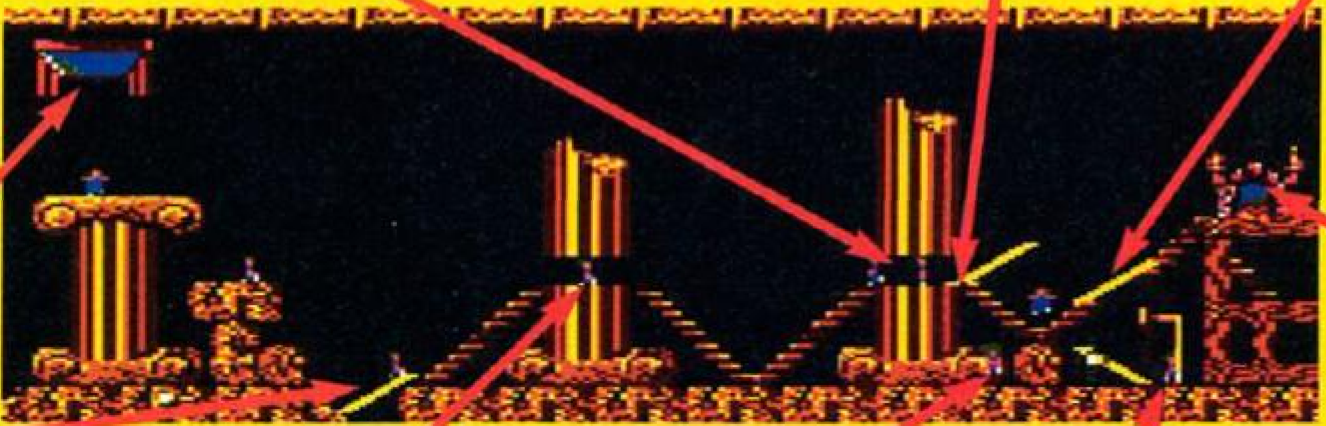
FIRST DAY TARGET SCORE

Get to level 20!

tips tactics

Mammalian Teamwork

Cos we're such a nice bunch here at *AA*, we thought we'd show you how to do one of the opening levels. On your marks, get set, go...





■ Well God knows what's happening here. There appears to be a massive mob of lemmings wandering off into space, whilst the exit just sits idly by. A change of tactics might be an idea.

the screen to click on loads of different lems, and more a case of lugging the joystick into position as quickly as possible to click on a single lemming.

Having said all that, this has to rank as one of the best conversions ever. The comic animation and the atmosphere of the original have been maintained, though things are obviously more laid-back (being slower). The graphics are brilliant, especially since we were half expecting a Speccy port, and the sound is quite polished.

Basically, *Lemmings* is regarded as the best computer game of all-time, and the Amstrad version is everything we could have wanted. There's enough of a challenge to keep you plugging away for ages, too. Though the Fun levels are very easy, things then start getting very complex, and there are some nightmarish time limits.

CPC *Lemmings* is as stylish and as frighteningly addictive as any other version, though it may be a little over-priced (£16 on tape!). Whether it's the best CPC game of all time is a question that could only be settled with extreme violence

Adam Peters

SECOND OPINION

"Psygnosis has done an excellent job here. Everything moves well and it's just as playable as the costly 16-bit versions. Great."

ROD LAWTON



■ One of the very complicated later levels, with a very limited selection of functions available.

history lesson

LEMMINGS INVASION

The game *Lemmings* first hit the world of home computers in February 1991. Initially on Amiga and ST, a PC version soon followed and *Lemmings* established itself as the best puzzle game on any 16-bit machine. At the end of that year the computer industry awards ceremonies took place; *Lemmings* pretty much cleared up, collecting the computer game of the year award from both the SPA (whoever they are) and at the prestigious European Computer Leisure Awards ceremony. Loads of other awards followed, and the game scored over 90% in every magazine that it was reviewed in.

Early this year the Spectrum version was released (to considerable acclaim), and a C64 version is almost finished. Contracts have also been sorted out for Psygnosis to produce versions of the game for Sega and Nintendo machines. By the end of the year *Lemmings* will probably be available on every major computer format. Phew!

icons galore

CHECK YOUR OPTIONS

There are nine different activities your lemmings can perform. Walking is the simplest (they all start off as Walkers), and the other eight can be selected by clicking on the relevant icon at the bottom of the screen and then on the lemming you'd like to change. The eight different abilities are outlined here:

Climber There are a lot of vertical obstacles around Lemmingland, and one way to get past them is to climb. Once turned into a climber, a lemming will retain that ability throughout the level.

Floater Don't let your lemmings go leaping off high ledges without their trusty umbrellas. A swift flick of the yellow vinyl and the little tykes float gently down to the ground. Another skill they retain throughout the level.

Bomber Use this and a number '5' will appear above the lem's head. No, it's not a hook to hang on to things by, as you'll realise when it then becomes a '4', then a '3'... When the counter reaches zero, the lem explodes. Used to get rid of blockers and blow away obstacles, this is great fun when used on moving lemmings – get the timing wrong and all sorts of chaos ensues!

Basher Turn a lemming into one of those and s/he puts on some boxing gloves starts a fight with any nearby solid structures. You must click on them when they're directly in front of the structure want them to bash through. They can punch their way through most materials, making a tunnel for the other lems to plod down.

Blocker When there's vital building work to be done, or a sheer drop you don't want the purple chaps to waltz off just around the corner, use a blocker to stem the flow. These dudes stand totally still and won't let anyone get past them. You need to blow the poor dears up to get rid of them, though.

Builder There's a big chasm below that leads to the seventh level of hell, and you don't want your lems to fall down it? Builders build ramps in a diagonal vertical direction. They only place twelve bricks at a time, so you'll need to keep clicking on them if you want a bigger ramp. A blocker is sometimes useful to keep the other lems at bay until the ramp is completed.

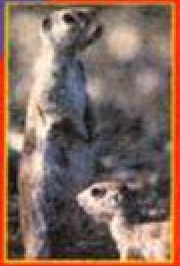
Miner If they haven't all been made redundant by the time you read this, miners are tooled up with pick-axes, and they dig diagonally downwards till there's nothing left to dig through. Use one of these chaps when you're only way past an object is to go under it.

Digger Dudes that dig directly downwards till there's no floor left underneath them (whence they fall). As with miners and bashers, anything made out of metal will stop them still.

hard facts

NORWEGIAN MICE

Don't believe all this parachuting, digging, bridge-building nonsense, the truth about lemmings is nowhere near as exciting. Lemmings are mouse-like creatures with powerful heads, long fur and short tails. There are nine different species of lemming, the most common being the Norway lemming (*Lemmus lemmus*). Every three to four years the Norway lemming undergoes a large population explosion, and then decides to go on a mass migration. This is thought to be a response to overcrowding, rather than food shortage, and the little tykes migrate in a random direction. Groups of lemmings encountering large water masses, such as seas, sometimes swim offshore. They then drown in large numbers. This is an accident, rather than suicide. Stupid little twerps. Oh, and they're brown not purple.



graphics 91%
The lemmings are a bit small, but overall it's colourful, detailed and scrolls well.

sonics 83%
A slightly dirgey, but nice enough, title tune and various neat spot effects.

grab factor 96%
Famously addictive gameplay and easy opening levels to draw you in.

staying power 94%
Sixty tricky levels is enough to keep you going for ages. Totally excellent.

97% VERDICT



■ Look out for that geezer on the other side of the door – he's got a pile of plates there and might just start throwing them...

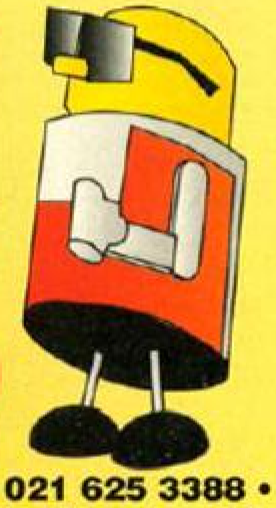


■ We don't like the look of this big bloke, do we? He's the one who throws bombs at you if you hang around.

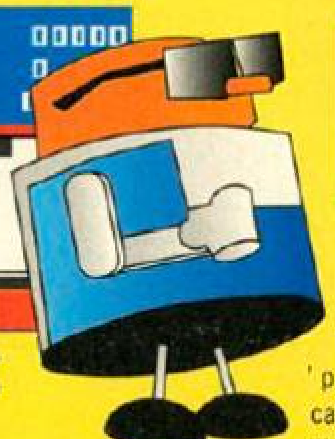


■ Wheeee...! Robo gets to slide down a rope at the end of level two. Don't let go, you mad fool.

BONANZA BROS







US GOLD • 021 625 3388 • £11.99 CASSETTE, £16.99 DISK

■ Stairs are easy. Just push up to move to the 'back' of the screen, then push right.

Now look, let's get this straight. You're a top TV star, right? And your house has just been burgled, OK? (Well, it's not OK, but you know what we mean.) Not surprisingly, you want to put a stop to all this and (not surprisingly) you decide to hire a security company to take a look at your own security arrangements... and this security company sends a couple of robots to test out your system...

Wait a minute. A couple of robots? It's true. They're actually reformed (could even be recycled, perhaps) villains who were, until that fateful 'phone call, sat at home watching television (there's not much else for reformed villains to do). Aha! – now's their chance to put their felonous talents into a good cause.

Needless to say, the houses are guarded. And the guards don't take too kindly to being shot at. And the tougher ones can survive long enough to lay you out even though you've blasted them with your stun-gun – which means evasive action is sometimes necessary. It's often enough just to move to the front/back of the screen and watch the baddie go by. Or you can jump on the furniture until the danger's over.

Hang on, though, what's all this about the 'front' and 'back' of the screen? Well Bonanza Bros is kind of 3D. Only kind of, though, because although you can move front to back on the screen as well as side to side, you can't move by much. And you soon work out that you're either at the front or the back – there's no middle ground. Hmm, bit of black mark then on the gameplay front...

Now the security system wouldn't be much good if they didn't lock the doors, would it? However, you can blast through them with your stun-gun (keep pushing on the 'stick at the same time). If there's a baddie on the other side you might just knock them out in the process!

There are worse problems than the doors, though. Much of the treasure is resting on platforms or shelves and you have to jump up to get it. Now jumping is a pretty spontaneous thing, right? Not if you're Robo or Mobo, though. To jump, keep the Fire button pressed for a bit long than you would if you were just shooting. Confused? Well, it's pretty confusing to do, too – you always seem to be firing when you should be jumping and jumping when you wanted to fire. Grrr...!

Anyway, once you're in the air you simply move the 'stick to guide Robo (or Mobo) to his chosen landing point.

You often have to jump to get past steps in the floor and other obstacles. These aren't always easy to make out, though (especially changes in the height of the floor. After a while you get to know what to look for, but it's still a bit of a pain. The answer? If you're stuck, jump!

Phew. Has all this made you scared of breaking into strange houses on your own? Well get a mate to help you out! Bonanza Bros has a simultaneous two-player mode – each player has his or her own view of the action via a split-screen display.

Now in theory, Robo and Mobo have different characteristics. Robo is supposed to be the brainy one, while Mobo is thick but strong. Robo is the red one, while Mobo is blue. But they behave in exactly the same way in the game (thick and weedy).

The two-player option nevertheless does add an extra dimension to the gameplay (it needs it), since Mobo and Robo can now co-operate as they try to clean out the houses. Unfortunately, twice the action can mean half the speed – in this case, screen update speed. Things can get mighty slow with a lot going on.

The guards are annoying gimps who don't stay down once you've shot them with your stun-gun (guess that's why it's called a 'stun-gun') Some take a bit more shooting than others, but they're all guaranteed to jump back up again at the worse possible

FIRST DAY TARGET SCORE

Clear level three on your own

freeze frame

Cop this!

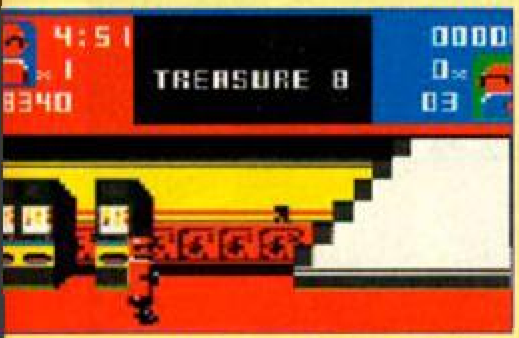


Robo (1) and Mobo (2) each get half the screen in two-player mode. They must collect treasure (3) and avoid the guards (4). You reach the upper floors via the stairs (5). Treasure (6), lives and time (7) are displayed.

SECOND OPINION

"I don't like the control method – it's really awkward. Jumping is fiddly, and you need to do it so often it drives you mad."

ADAM PETERS



■ **Life gets harder on Level Three. Particularly since Robo's only got one life left...**

moment (needless to say).

The Junior Security Guards are dead weedy and you can knock them out no trouble. Senior Security Guards are more of a nuisance. Start shooting at long range, or you'll be the one who gets decked (losing one of your lives in the process). Potentially more serious still are the Catering Staff, who chuck plates at you and the Heavies who lob bombs. Oh, and look out too for guard dogs (who look like little pink poodles).

You only meet the tougher guards on the later levels. Sounds like you've got your work cut out, eh? You have... but once you realise how the game works things get a lot easier. You've got to collect all the items of treasure in the house and then hot-foot it away to the roof and your waiting airship. All the treasure is clearly visible and the house layouts don't need much exploring.

Once you've cleared each house you get whisked off to the next challenge. In all there are ten houses to successfully burgle. Will you stick with it that long, though?

Graphically, *Bonanza Bros* is a bit weak. You can see what's going on, but the sprites are blocky and the backgrounds are about as basic as you can get.

Sound is limited to phut-phut shooty noises, plus one of those jingly title tunes which is quite tolerable the first 60 times you hear it, but gets a bit wearing after that.

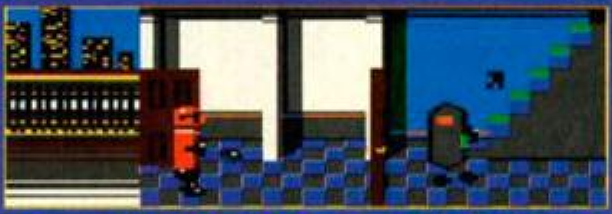
Bonanza Bros is built around a cute idea, but what really carried the game in the arcades was its amazing ray-traced graphics. Needless to say, the CPC version doesn't have ray-traced graphics. You're left with a game that's no better than average.

Rod Lawton

walk this way

A quick guide to house-burgling...

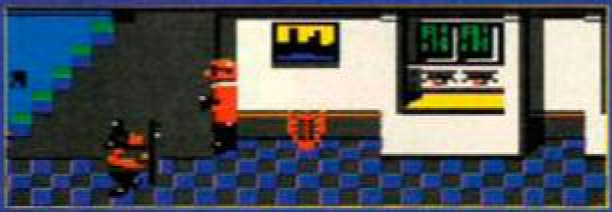
Level one's nice 'n' easy, but there are still a few tricky problems facing would-be robotic robbers,



1 Your first problem is getting in through the front door. Fire and push right...



2 Ugh! You've been flattened already. Those guards have bulletproof shields



3 However, you can hide against the rear wall until they go past



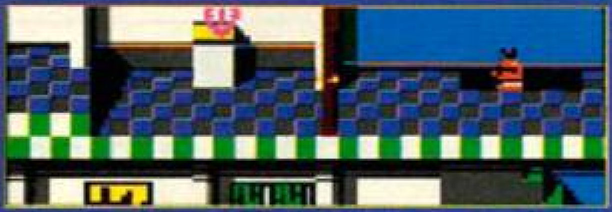
4 You have to jump up on to the shelf to get this item of treasure



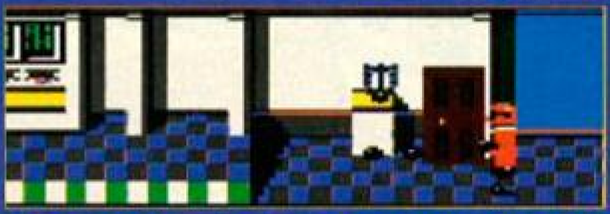
5 And you have to jump on to this raised section of floor, too



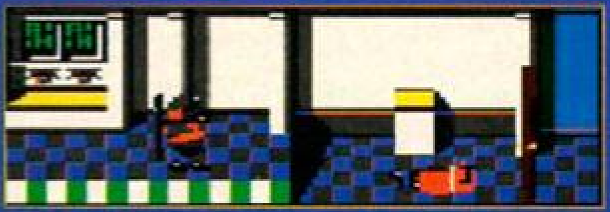
6 Aha! What's this, a flight of stairs? (That arrow's a bit of a giveaway)



7 And here's Robo emerging on the second floor. The coast's clear so far



8 Too good to be true? Those baddies can't be far away...



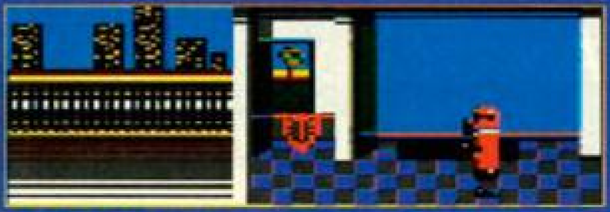
9 Told you so. The only way to stun those guards is to shoot them in the back



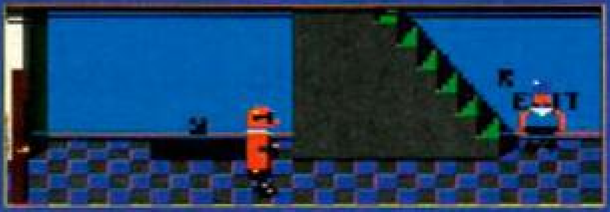
10 That's right, hide until he's gone past. You're learning



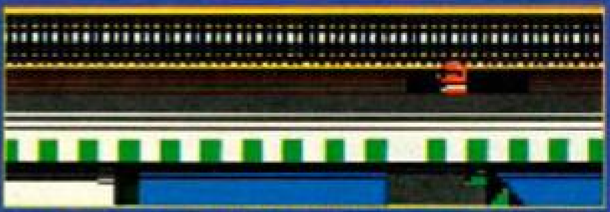
11 Ach! – leave me alone! Robo is outnumbered two to one



12 Look, more treasure! Get it quick, 'cos a guard is going to appear soon



13 You've got all the treasure, now it's time to make a run for it



14 Done it! All you've got to do now is wait for your airship

graphics 60%
The pseudo-3D is deceptive, and the whole presentation is a bit crude

sonics 55%
The title tune's nice and jolly, but there's not much to listen to during the game

grab factor 68%
It looks like it's going to be fun, but the sluggish animation and controls put you off.

staying power 51%
Which will finish you off first – the duff controls or the limit of ten levels?

63% VERDICT

cheat mode

Welcome to another instalment of *Cheat Mode*. This is where champion cheat-finder PHIL HOWARD brings us the month's best hints, tips, solutions, passwords and more... PLUS, of course, full details on the game pokes supplied on the covertape. We pay £10 for the best cheats, and £20 for any pokes we use on the covertape. Send in your game-busting info to: Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

SWITCHBLADE

Remember some time ago we had a cheat for the cartridge version of *Switchblade*? Well Adam Noble has supplied a keypress for the tape (and presumably disk also) version of the game, and what do you know it's almost the same! Get a high score and enter your name as SLEEPY then press the number of the level you want to go to, and keep it down, then press Fire to start – you will start half way your chosen level.

TURTLES 2 – THE COIN-OP

An update to the *Turtles* coin op of last month – after redefining the keys C,H,E,A,T the cheat will be active. You can then redefine the joystick etc. and you will retain infinite continues. Also, pause the game with P and press the spacebar and you will jump to the next level. This cheat comes to you courtesy of Craig Yates of Firvale, Eric Walker of Guilford, and Mohamad Ellis of Peckham.

POTSWORTH & CO.

Andrew Webber of Welwyn Garden City has found a keypress for *Potsworth and Co* (in fact, he has found three) all of which give you infinite energy. On the menu screen, hold down the keys Q,W,E,D,V or E,R,F,Z,X or A,W,E,T,D,X – that's some choice, Andy.

ROADRUNNER AND WILE E COYOTE

M.J.Taylor of Bristol, Gregory Morris and Michael Banner of Sevenoaks, have found a keypress for *Roadrunner and Wile E Coyote* – hold down the keys H,E,L,P on the title screen and the border will go white, you will have infinite energy.



WONDER BOY

M.J. has also discovered that on *Wonder Boy* if you press ESC and hold down the keys SEGA it slows the timer.

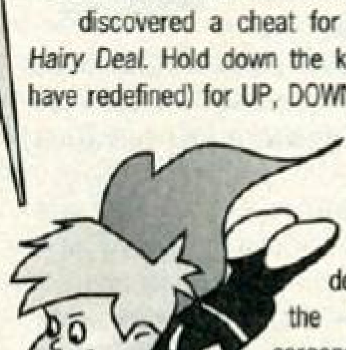
SPACE MANIA

Alex Pim of Beaconsfield has a keypress for *Space Mania* – when the game begins press Control and C, A "C" for cheat will appear in the bottom right hand corner, you will then have infinite lives and invulnerability.

GARFIELD'S BIG FAT HAIRY DEAL

K. Kitchen (come on Keith, Kevin, Klaus whats with this initials business?) of St. Helens has discovered a cheat for *Garfield's Big Fat Hairy Deal*. Hold down the keys (whatever you have redefined) for UP, DOWN, LEFT and RIGHT and press the Fire button. After doing this you can use F0 and the decimal point under the keypad to skip screens.



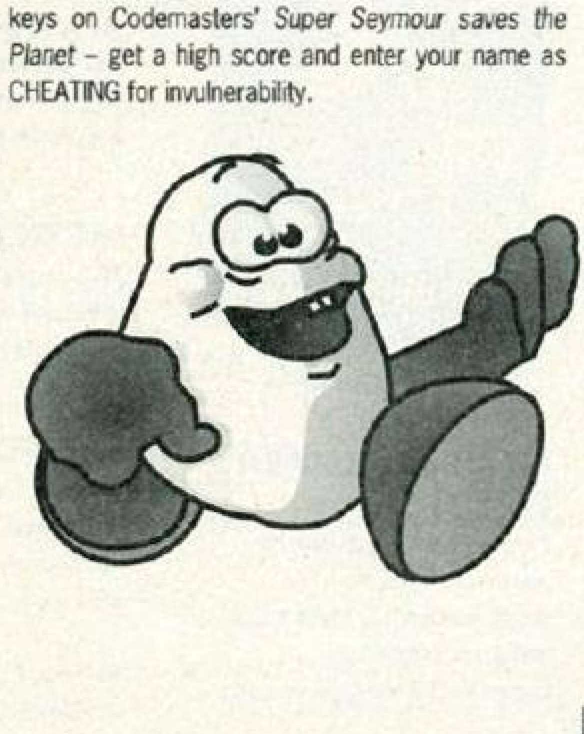


QUICK DRAW MCGRAW

Quick Draw McGraw is the next keypress of the month – this one's from Garry Scholes of Gorbals in Glasgow. Hold down the keys T,R,E,A,D,S on the title screen, it will give infinite lives (only outside the train, though).

SUPER SEYMOUR SAVES THE PLANET

M.J. Taylor (Mick?, Martin?, Matthew?, Mark?) of Bristol once again fighting with the keys on Codemasters' *Super Seymour saves the Planet* – get a high score and enter your name as CHEATING for invulnerability.



Covertape pokes

OK, you asked for it, you've got it! Request flooding in (some of which are impossible, by the way!) – And, out of the land of shadows and darkness (from the depths of the cheat mode vault), hotfoot to your door come some all time classic pokes for this month's covertape





STRIDER (TAPE)

Stephen Troup has produced a cheat (using the infamous "Go loader") for *Strider*, which supplies infinite lots of things (see the listing).

SOLOMON'S KEY (TAPE)

Funnily enough, Johnny and Kim Olsen of Denmark have also produced a cracking cheat for that classic game *Solomons Key* which uses the same system as the *Strider* poke – once again you can select the facility you need (see the listing and delete the lines you don't want).

● If you've never seen this type of cheat before, you might like to know that generally they take 3-4 minutes to work through the protection.... so be patient (it will work...)!

RICK DANGEROUS 1 & 2 (TAPE)



Two other frequently requested cheats originally penned by Stephen Troup are for *Rick Dangerous 1* and *2* they both give infinite lives, bullets and bombs





LASER SQUAD (TAPE)

Laser Squad always was, and always will be a classic, back in *AA62* Tom Jolly gave us the ultimate poke for this extra special game. Watch out... here it comes again.

JOE BLADE 3 (TAPE)

This poke gives you infinite energy and ammo.



PSYCHO HOPPER (TAPE)

Psycho Hopper (run, run, run away – ah! those were the days), was from Graham Smith and gives infinite lives and more time for the tape version.

INDIANA JONES AND THE LAST CRUSADE (TAPE)

Stephen Troup leaps in with another offering using the "Go loader" and produces cheats for *Indiana Jones and the Last Crusade*. It will give you infinte, lives, whips and time (or select which you need by taking out the appropriate lines in the program).

MYTH (DISK)

Myth... one of my favourite games. This poke brings you infinite lives, and is from Sale's masterhacker Mike Wong (Where is he now? – did I see him on *Casualty* the other night?).

DRAGON'S LAIR 2 (TAPE)

Dragon's Lair 2 is very nearly impossible (well it is for me!) without a cheat, so for the original tape version, here is a poke that not only gives you infinite lives but also lets you to select your start level.

● **Anyone want more classic pokes on the covertape? Send in those requests!**

Total Eclip

Start: You start your quest outside three pyramids on Sahara – C. Make your way around to the back of the closest pyramid, there you will find a small building with a door. Go through the door and you will arrive at Entrance – A.

In front of you, you will see an arrow pointing downwards. Walk forward and climb down some steps to reveal 3 doorways. Go through the right hand door, and enter Selquet – H.

Take a step forward and turn 45 degrees to the right, look down and you will see some steps, climb down. In the room are several blocks, a bar of gold and a trough of water. Fill your flask, turn towards the blocks and shoot, they will disappear revealing a door. U-turn (U) and you will see another door, go through this and you will arrive at Sphinx – X, this is the room where the Sphinx will re-assemble. On the wall to the north is an Ankh, collect it, and go through the door in the eastern wall, you will arrive in Thebes – H.

On the wall to the east is a block, shoot it and it will rise up to reveal a door. Go through the door and arrive at Thebes – G. You are faced by 2 statues, (by shooting at the noses you will prevent them shooting you, but this will have to repeated each time you enter the room). Turn to face the south and you will see some steps. Climb these and go through the door nearest the north wall, you re-enter Thebes – G.

Go down the steps, shoot the statues, go through the door in between and arrive at Thebes – F. Turn to the south and walk to the south wall, turn to the east and walk forward, then collect the bar of gold that lies in front of the locked door. Walk into the door to unlock it, and enter the Jinx section.

Room 1 – Jinx E: Shoot the first barrier (it will disappear), shoot the second barrier (it will raise) change height (H) and crawl under. Go through the door.

Room 2 – Jinx D: Walk into the first barrier (it will fall over), walk over it. You will see another barrier with two symbols on the walls beside it, shoot the symbols and then shoot the barrier (the barrier should disappear – if not repeat the process). Quickly walk through the door.

Room 3 – Jinx C: Shoot the cube in front of the barrier (the barrier will move forward), walk up to the barrier, U-turn and shoot the cube again (The barrier will return to its original position). Walk into the barrier (you will hear a noise) U-turn and you will see a door has appeared, go through.

Room 4 – Jinx B: Walk up to the barrier, U-turn (a cube will have appeared), stand on the cube (the wall will disappear). Quickly go up to the second barrier and shoot it (it will grow to reach the ceiling). Walk right up to the barrier, change

e II: The Sphinx Jinx

(AA78 covertape)

Complete solution – part 1

The *AA78* covertape contained the excellent Incentive game *Total Eclipse II (Sphinx Jinx)*. Archeologist David Draper of Lowestoft has produced his own version of the Rosetta stone to supplied you with the complete formula so you can finish this formidable *Freescape* freebie... it's so huge that you'll have to wait 'til next month for the concluding part!



■ **On the *AA78* covertape we gave you a complete version of the *Freescape* epic *Total Eclipse II: The Sphinx Jinx*. Four issues later, we've got the complete solution for you!**

height and crawl backwards until the bottom half of the barrier disappears. Rotate yourself through ninety degrees, crawl to the left wall, rotate yourself back so that you are facing the wall. Change angle (A) to the smallest available and rotate yourself once to the left. You should be facing the wall, but also be able to see the barrier. Crawl forwards moving into the wall but also under the barrier. When completely under change height and go through the door.

Room 5 – Jinx A: Walk forwards a few steps and U-turn. Next to the door you will see the Sphinx's lips. Change height and collect them. Change height once again and U-turn, you should see the Ankh on the far wall, go and collect it. Rotate yourself so that you are facing the two blocks. Stand in between them, face the wall you collected the ankh from and change height. Shoot the lower part of the block, and part of it will disappear revealing a tunnel. Crawl through it and you will appear back at the re-building room, Sphinx – X. Now is a good time to save your position.

Go from Sphinx – X through the door facing south to Entrance – A then to Selquet – H as before. If you are short of water fill your flask from the trough, then go through the door to the west, you re now in Selquet – G.

You are facing some steps; to the left of them is a part of the Sphinx, collect it. Go behind the steps and through the door, you will arrive in Selquet – F.

There are some steps on the north wall; climb them and go through the door at the top into Selquet – E.

You are standing on an "L" shaped ledge; walk along and fall off at the north wall. U-turn and you will see a barrier in the middle of the room. Walk to the west wall and then turn to face south, you will see that the barrier doesn't stretch right the way across the room. Walk through the gap and collect the Ankh and the Sphinx part on the far side. Go back through the gap climb the steps, walk into the door to unlock it then enter Selquet – D. This is one of the two rooms with teleporters, but don't teleport yet! First go through the door ahead that leads to Selquet – C.

An Ankh is on the floor in the middle of the room, there is also a Sphinx part and water trough, get the Ankh and the Sphinx part, then fill up with water, but do it quickly as there is a laser in the ceiling that will shoot you. Go to Selquet – E and use the teleporter.

● ***Second and final part next month!***

HELP

If you're stuck on a game, or you simply can't get hold of an old classic, send a postcard (or write on the back of an envelope) to:

Games Helpline
Amstrad Action
Beauford Court
30 Monmouth Street
Bath Avon BA1 2BW

The normal Helpline rules apply:

DO try to keep it quick and simple – name the game, name your problem, and make sure it's a reasonable request!

DO include your first name and your telephone number. Sorry, we can't print full names and addresses.

DON'T try to advertise 'games for sale' – that's what the *Small Ads* page is for. This section is for people who need help only.

In *Spellbound Dizzy*, how do you jump over the funnel in the 'Reserve Tank' to get the fishing net?
Karl, 0538 33679 after 4:30pm

Help needed badly for *The Living Daylights* (disk). Cannot get past Level One.
Roger, 0247 460317

Desperately wanted: *Little Computer People* tape or disk (464). Sensible price paid.
Steve, 0202 698760

Help required! *AA54* needed or the *Fantasy World Dizzy* solution in that issue. Any expenses paid.
Neil, 0738 812711

Help offered for *Castle Master*, *Total Eclipse* and all *Dizzy* adventures EXCEPT *Dizzy 5*. Wanted: *Puffy's Saga* and *Sphinx Jinx*. Cheat wanted for *Monte Carlo Casino*.
Michael, 0639 845108

Desperately wanted: *Elite*
George, 081 560 2557

Has anyone got *Laser Squad* on disk?
Alistair, 0532 657573

Help! Cheats, tips and pokes wanted for *Myth* and *Head over Heels*.
Elliot, 0932 567999

Can you use the torpedos, fighters and bombers in *Guadal Canal*? If so, how? Also submarines.
Robert, 041 336 5190

Please could you tell me how to kill the monster at the end of Level One on *R-Type*?
Marc, 0203 344399

Help needed in *Hacker*. What is the Logon password at the start? Please help or I might go mad!
Chris, 0242 518391

gossip

CPC DOMAIN IN NEW HANDS - OFFICIAL!

After handing the responsibility of Scull SL over to Graeme Chesser a few months ago, Alan Scully has now relieved himself of his disk-zine, *CPC Domain*. The new editor of the magazine is Simon Warford (who was a regular contributor). Simon can be contacted at: 134 Draper House, Hampton Street, London SE1 6SY.

RUSH FOR PRESTO

Presto PD isn't exactly what you might call a brand new library, but possibly one of the best services on the CPC. Matt Gullam has over 100 sides of software which he provides on both 3" and 3.5" disk (data format) for only 25p! He also runs Presto News: A fanzine that covers anything from games to serious software. *Presto News* is a monthly magazine, costing 75p (excluding postage). Send your orders immediately to: Matt Gullam, 1 Pembroke Close, The Mount, Cornwall PL24 2BT.

TWO LIBRARIES CLOSE – THE WORLD MOURNS...

Pisces PD only opened two months ago, and is now closing again due to Paulo Cuomo's lack of time. When he opened the library, he obviously hadn't bargained for the amount of work that needs to be put into a library...

The long-running Penguin Software library has also been forced to close, as librarian David Carter is no longer able to continue the running of the library for family reasons.

WARNING! POTENTIALLY LETHAL PUBLIC DOMAIN!

In theory, there should be no such thing as 'rip-off' where free software is concerned. Do not be fooled! There is a lot of rubbish kicking about. Slideshows in particular should be avoided. Not all slideshows are poor, although some of the hand-drawn 'It fills the library' jobs can make you positively sick. One collection of light-pen drawn pictures spans two sides of a disk - every one of them looks awful, and what's more they can all be compressed to take up little more than 60k!! Also particularly insipid are BASIC demos – oh! So dull!

pd public image

Shake the last few coins from your money box, nip down the offy for a couple of stamps and read the only column for those who refuse to spend more than a pound for software. It's the man with the extra-large letterbox, TIM BLACKBOND...

reviews

Instead of reviewing disks full of various different programs, we thought it would be more useful if we simply provided reviews of individual programs. All of the progs reviewed below should be available from any well-established library. Check the libraries' catalogues to find out what disk the program your after is on (and what other programs come with it).

I-SPELL

EVERYBODY makes a few spelling mistakes. These do not look good on a job application form! The cheapest commercial spell-checker is Tas-Spell at £20. Why bother when *I-Spell* is only a quid and not to mention faster! It comes with an extremely large dictionary, to which words can be added by the user. For the price you can't go wrong, it's excellent! AA Recommended

ROBO-CUP

A puzzle game with the looks and playability not-entirely unlike *BallDozer*, which appeared on the fourth cover cassette. You must control a droid through various rooms in order to push several chests onto assigned pads. Easy? Not a bit of it, get one chest trapped in the corner and your chances of completing the level are below zero. Quite amazingly simple, yet so frustrating!

VORSPANN DEMO CREATOR

As mentioned elsewhere, the number of demos released by incompetent dweebs is frightening. Here's the solution! With this remarkable utility, you only need to change a few program lines and import a piccie to come up with your very own demo, featuring fast colour bars and a smooth scroll. Each line is clearly annotated, so you know just exactly what you're doing. The only trouble is, although the demos look great, they also tend to look similar to each other.

BANNER MANIA

Be warned, a printer is needed to use this program. It simply creates extra-large banners across several sheets of continuous paper, in one of eight sizes. Also on disk are several fonts to use with the program. It does tend to go through a lot of paper, but the final results look most gratifying!

We've got a new look to *Public Image* this month, and a new author. Tim Blackbond is 17 years old, lives in West Yorkshire and has owned a CPC since 1985. He has been producing the *Artificial Intelligence* PD fanzinesince July 1991, and his favourite PD program is *Power Page* (included on this month's covertape)..

directory

Each month we will detail some of the well established PD libraries, together with any new bugs to have emerged in the past few weeks.

THE OLD HANDS

ADVENTURE PD, Debby Howard, 10 Overton Road, Abbey Wood, London SE7 8HF. Deals only in adventures (and Freescape games). At only £1 for a disk or a C90 cassette, keen adventurers can't go wrong!

DARTSMA PD, Adam Shade, 47 Kidd Place, Charlton, London SE2 9SD. 50p for one side of a 3" disk.

ROBOT PD, Richard Fairhurst, 2 Trent Road, Oakham, Rutland LE15 6HF. Only 45p for two disk sides of software.

SCULL PD, Graeme Chesser, 44 Echline Grove, South Queensferry, West Lothian EH30 9RU. Open only to subscribers of CPC Domain. 50p for two disk sides.

SOUNDS LIKE PD, 6 Keyberry Park, Newton Abbot, South Devon TQ12 1BZ. An excellent library specialising in all things musical that we've someone forgotten to mention so far. 50p per disk.

THE NEW BUGS

HAWK PD, 23 Sywell Avenue, Loughborough, Leics LE11 0BU. A new cassette library that charges for individual batches of programs in pennies (various prices, all cheap).

MERLIN PD, Obi Okwuldi, 79 Otter Street, Derby DE1 3FD. A barrage of letters from Obi in the past month, his library specialises in demos and charges 50p per disk side.

SIGNAL SOFTWARE, 83 Longleat, Great Barr, Birmingham B43 6PY. A small but growing range, with a £1 copying charge for 3-inch disk, 3.5-inch disk or cassette.



the Balrog

Only two pages for the Balg? Is this the beginning of the end? Certainly not! The Balg is here to stay... but he has had to cram all that adventuring news into a smaller space. Even Balrogs have to give in sometimes...

review Crystal Theft

REVIEWED BY THE ORC • £1.50 TAPE, £3.50 DISK
Wow Software, 71 Radipole Lane, Weymouth.

Captain M has failed miserably in his mission so now it's your turn. When all else fails send in the idiots, and idiot you must be dumped on the planet Vegan with only your sonic pistol and trusty Katana (*Japanese sword – Balg*) for company. Not a lot of help! But then these Vegans never did keep their planet clean, so if you have a look round you might find something useful...

However, don't waste too much time on the surface as you've got to enter the underground temple and find that all-important crystal.

Crystal Theft isn't a new game – it was first released in 1984 by Wicca-soft but it has now been re-released by Wow. It has a fair bit going for it in the way of objects to pick up, puzzles to crack, rooms to be searched, doors to be opened and lifts to go up and down in but for me personally it has quite a few things against it – the screen layout, for a start, is poor (although you do get a useful window which lists the objects you are carrying). The parser at times is rusty and shows its age, "EXAMINE DOOR" gives the response "I don't have one of those" – of course we don't have the door – it's in front of us and serves a definite purpose, so why can't I examine it?

Scoring is also strange – I like games where you can look at your score and see it go up as you solve puzzles as it give you a sense of achievement. In *Crystal Theft* there is one particular object that when picked up adds 50 points to your score and yet it has no other use – Why? The game wasn't much fun to play and shouldn't have been re-released!

Contacting the Balg

To contact the Balg, write to him at: Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2AP or e-mail at cazsjw@uk.ac.leeds.dcs.

atmosphere	60%
interaction	74%
challenge	61%
VERDICT	53%

GAC programming clinic

If you have any questions about the use of *GAC*, specific *GAC*-related problems and queries or hints and tips of your own then jot them down and send them to: The Balg's GAC Programming Clinic, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

Q: How do you swap one object for another?
John Reilly, Barnstaple
A: Use the SWAP command! The action 'x SWAP y' will exchange objects x and y. Thus you could write a routine for 'LIGHT LAMP' which swaps the objects 'a lamp' with 'a lit lamp'.

Q: How do you tell what you are carrying?
John Reilly, Barnstaple
A: Use the 'LIST WITH' command which lists all the objects you have with you.

Q: Does it matter if you send the adventure on tape or disk?
Brendan "Legolas" McGoldrick, Strabane
A: No! I'd prefer your entries for the GAC compo on disk but you can send them on tape if you really want. If you enclose a stamped self addressed envelope I will return your game when I have finished with it.

Q: Has QS.ADV to be loaded each time *GAC* is loaded?
D.S.Anthes, Dorset
A: Not necessarily – QS.ADV just makes your life easier by including a lot of adventure conditions which are used in every adventure, but you don't need to load it if you don't want to!

Q: In your *GAC* tutorial the text clearly states that key is in room 8 but illustration show it in room 4 – which is right?
D.S.Anthes, Dorset
A: The text – there was a muck up in the map which showed the key in the wrong room.

Q: Is there any way to program character interaction? (For example, being able to speak to another person, with different reactions for different things said.)
Keith O'Conor, Dublin
A: Yes, but it's not easy! You'd have to code a response to each word said which is very difficult considering the complexities of the English language! However you could code in specific phrases such as 'SAY HELLO' or 'SAY PASSWORD'.

Q: The adventure I'm writing is BIG, so big that I've had to make it two parts. My problem is that to access the second part I've written a BASIC password system. On the title screen you get a choice

CLUE-SNIFFING with the Balrog

This month's scintillating collection of clues are from Lee Davies (Bristol), Thomas Christie (Grangemouth), Edmund Spicer (Littlehampton) and David Holland (Alsager).

Dracula

- To get past the coachman, 'give money'.
- Ring the bell on the desk in the golden krone hotel and sign the register.
- Sit in the dining room and read menu.
- Eat food, remembering to go to bed early, close window, if you leave room take lit candle, if attacked by dog, search, give bone, return to bed. When you are awake, leave the hotel. If you are offered a coach ride refuse it! Just sit and wait and wait and wait until a coach arrives.

Holiday II

- Give money to lady in the shop to get card.

Lords of Time

- Pour the petrol over the wood and light a match when the mammoth appears.
- Give the viking the fur and he will give you a horn.
- Push the rock in the caves.

Terrormolinos

- At the bullfight it is best to save your position and map the streets then reload, unknot hanky, wave red hanky at bull and return down the streets until you reach the china shop, where the bull will be trapped.
- At the monastery, after taking photos, go to the catacombs and go directly south-west to find Mr. Snargsby, call him and then return to the coach.

Trial of Arnold Blackwood

- Don't eat the kipper found in the dining room! Instead, feed it to the cat that guards the final room.

Very Big Cave Adventure

The three words to remember are:-

SUGAR – takes you from the wellie house to debris room (or vice versa) in part one.

BRAN – takes you from the chamber to dead-end (or vice versa) in part two.

MUD – takes you from the wellie house to dead-end (or vice versa) in part two.

Videoworld

- To switch between night and day, draw or open the curtains.

Yarkon Blues

- Find part of the heat shield by the wreckage of Odour-Eater 2.
- Use the phaser to see in the dark.
- Pull panel at space-pod to get a shovel, then dig around monument to gain access to the sewers.
- To get to the transporter from the monument: D, Sx2, E, Sx2, W, S, teleport.

• Got any problems with adventures? Write to: Balrog's Help, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

HELP

Please can you tell me where I can purchase a tape for the 464 with chess on it?

Louise Hope

Sorry, Louise, I don't know – but maybe one of *AA*'s readers does. Helpful readers should write to Louise at: Woodlea, Netherburn, Larkhall ML9 3BS.

Could you tell me whether *Leather Goddesses of Phobos* is available on tape for the 464?

P L Ramsay
Blackley

***Leather Goddesses* (and the rest of the Infocom range) was only released on disk and even then it is now near impossible to get hold of these games – sorry!**

I am interested in writing my own adventure software and would like to know if you know of any programs which I might find useful. I found *GAC* quite good and very easy to use but it did not really give me the scope or depth I am looking for. I have heard of the program *Quill* but cannot find any companies that still sell it.

Any help or advice you can give would be much appreciated.

Dawydd Hague
Sancton

The four main adventure creators are *PAW*, *ADLAN*, *GAC* and *Quill*. *ADLAN* and *PAW* require a disk drive and *ADLAN* also needs a rombox to work.

- **PAW & Quill: Gilsoft, 2 Park Crescent, Barry, South Glamorgan CF6 8HD.**
- **ADLAN: Graduate Software: 14 Forrester Avenue, Weston-on-Trent, Derby DE7 2HX.**
- **GAC: *AA76* covertape!**

of going to part 1 or 2. Not a problem – however, what I want to find out is if there's any way that at the end of part one I can make it automatically load up my BASIC password system.

David Georgiades, Kent

A: Firstly, remember that the *GAC* compo entries must be only one-parters – there isn't really room on the covertape for much more.

Unless you know a lot about machine code it is impossible to get *GAC* to execute external routines such as a password checker. However, at the end of part one you could give the player a password for part two and then tell the player to load it. You also don't have to write a password routine in BASIC – you could include it into your actual *GAC* game. Just make the first location in part two a room with no exits with the description 'Please type password from part one:' and then write a condition which means when you type the correct password *GAC* uses the GOTO command to send you to the real first location.

Q: Does *GAC* allow characters which can move from location to location? If so how?

Brendan "Legolas" McGoldrick, Strabane

A: Ummm... It is possible but it is complicated! You'd have to write a routine which used the CONN command to determine which exits where available and then move the character (who would be stored as an object) using the x TO n command. Any reader want to send in such a routine?

Q: In my adventure I have a twenty-location maze with the same description in each location – is it possible to write a routine to print the description in each room rather than have to write out the same words twenty times?

Rachel "Mad Cow" Smith, Chesterfield

A: Yes it is possible – just place the following in the high priority conditions:

```
HIGH1 RESE n END
   2 IF (ROOM > x) SET n END
   3 IF (ROOM > y) RESE n END
   4 IF (SET? n) MESS n WAIT END
```

Where n is a marker used to say wether you are in the maze or not, x is the first location of the maze and y is the last.

GAC COMPETITION ENTRY FORMAT

A lot of people have written asking for what they should send with the *GAC* games they write for the competition – so here they are, the full compo rules!

- **The game must be GACed (It is a *GAC* competition after all!)**
- **It must be one part only (the covertape won't have room for a multi-part game but you can have a loading screen if you want)**
- **You can send your game on a tape or disk (although I'd prefer the game on disk). But if you want your game back you must include a stamped self addressed envelope.**
- **You must send a solution and map with your entry (I can't be expected to play hundreds of *GAC* games without any help!)**
- **It would help if you sent any relevant instructions.**
- **It would also help if you wrote why you feel your game is good – outline any clever puzzles, amusing responses or strong points.**

Remember, don't send your games yet – there's no rush!

part one of 3
hold the front page

Hello, good evening and welcome to the start of a short series on publishing your own magazine. This month ADAM PETERS is writing about writing. Er...

Producing your own magazine, huh? The first thing you're going to need is some words. The actual act of putting a few words together to produce a readable review or article shouldn't be any problem. After all, the one thing you can't avoid learning at school is how to put together written pieces. Every subject (er, except maths) involves producing readable written work, whether it's essays, reports or 'full written answers' to questions. So "I've never written anything before" is a totally rubbish excuse for not doing a fanzine.

There are a couple of unwritten (ho ho, my little pun there) rules about making your writing look professional. First of all, it has to make sense. Fiddly aspects of grammar like punctuation and stuff aren't really important, the only problems arise where you try to cram too much into a sentence and it goes a bit odd. Here's an example: *Next month we will be looking at the Wobbler, a new product from Ratfink that makes drawing circles much easier, and what you have to do with it.* An easy way round this sort of thing is to break long sentences up into two sentences, each containing a separate point, and linking them in the same way as your duodenum and botty (i.e. with a colon). Er, although in the above case just adding the word "explaining" after the "and" would have done the trick. (All right, so it wasn't a very good example. Sorry.)

The big trick to make your writing look more 'professional' is to try and cut down on the use of the word "I". There's nothing wrong with personal opinion (after all, wanting to have your say is a main reason for starting a fanzine), but too much use of the word "I" looks clumsy. Cutting down will help to disguise personal opinion as expert analysis. Take a look at *Action Test* – we never use the word "I" in any of the games reviews (Second Opinions and captions excepted).

So what do you write about? The simplest starting block is to get hold of another magazine dealing with the same subject (High Street mag, fanzine or whatever) to give you an idea of the sort of things you can cover. For a CPC games mag, you'll want games reviews, games news, a cheat section, etc. Regular features go down really well with the punters. Series (tutorials and so on) are also a good bet, as once you've got someone interested in the series they'll (probably) keep buying the mag. Very long running series are a bit of an off-putter though. New readers will be less than overjoyed to encounter *Advanced Pascal Programming part 73.*



Above all, be adventurous. You've started a magazine because you're really interested in a topic/hobby and want to inform and entertain other people with the same interest. So what article would *you* really like to read? What are *you* interested in finding out more about? Why not go on some trips and interview some people you've always wanted to question.

The most enjoyable article in the football fanzine I used to produce was a 'Behind the Scenes' report on how an issue of the *Birmingham Sports Argus* was put together, explaining how it was got out on the streets so quickly (within minutes of the final whistle on a Saturday afternoon). It was simply a case of ringing up the paper's editor out of the blue and explaining what I wanted to do. He was really into it.

I was shown every part of the process, watching the ed working out the headline for the cover, seeing the results pages being pasted up, right down to watching the button being pressed to start the printing presses rolling. I didn't take a camera but an *Argus* photographer took some pictures of the offices the following day and sent them on to me. And I had some tea and biscuits.

Everyone's vain. Everyone's out for any publicity they can get. Big pop stars like Carter USM and The Wonderstuff are as happy to talk to fanzines with a circulation of 200 as to high street mags that sell 100,000. They know that fanzines are produced by people with a genuine interest, rather than cynical old hacks counting the days till the next pay cheque.

Finally, the whole point is that it's your magazine, so don't let anyone else tell you what you should or shouldn't put in it. For example, feel free to ignore everything I've said, rip this page out of the mag and post it to me in little tiny pieces.

Next month we will be looking at artwork, design and DTP packages. See you then.

Using the technology

There's nowt wrong with typewriters and such like, but chances are that with a spanky computer at your disposal, you'll be wanting to use it (Mr CPC) to knock up your text. That means getting hold of a word processor.

Even if you're going to use a DTP package to lay the pages out, you'll still need to type the text into a WP program first. It is possible to type text straight into a DTP page, but this is only really suited to headlines, captions and small bits of text. Because of the lack of decent editing facilities, spell checkers and so on, typing large articles straight in in this manner really is more trouble than it's worth.

So which word processor should you go for? We covered WP packages in the AA80 Buyers' Guide, but basically whatever program you've got will do the job. Obviously commercial products with flash features like spellcheckers are a boon, but if you haven't got the money to fling around, a simple ASCII text editor will suffice. We included one, *Word Pro*, on the *AA79* covertape, and another, *Text Editor*, appeared as a listing in the booklet given away free with *AA76*.

If you have got the money to fling around (and a 6128), go for the CP/M version of *Protext*. It costs £40 from MJC Supplies (0462 481166), and offers an extensive spellchecker, mail merge facilities (for writing letters to subscribers and such like) and best of all, it features something called 'box mode'. This allows you to chuck text into columns, so you can produce flash looking pages straight from the word processor. You can then liven up the printouts up with Letraset and piccies, and text from a word processor is of course much neater and easier to read than DTP output.

Finally, a quick word about spellcheckers: if we at AA didn't spellcheck everything we wrote, the magazine would be absultely ful of spelinh mistkes. Spellcheckers are one of the gnarliest features of CPC word-processing. If you've got one, you'd be a fool not to use it.

ACTION replay

Summertime and the living is easy, they say. Not for ADAM PETERS, it isn't. We've given him a big pile of budget re-releases and locked him in the cupboard under the stairs, while we go down the park for a picnic. Ho ho ho...

DIZZY DOWN THE RAPIDS
CODEMASTERS • £3.99

Whilst most of his adventures are mega top, our egg-like chum Dizzy also has this habit of cropping up in arcade games. The majority of these are pretty crap and though *Dizzy down the Rapids* isn't the worst (that honour goes to *Panic Dizzy*), it's still pretty sad.

Basically this is an out-and-out copy of the Tengen coin-op *Toobin'*. You're in a barrel, travelling down some fast rushy water, chucking apples at the various foes that confront you. Some of these are splashing around in the water, others are standing on the riverbank. Yawn.



■ This looks exciting, doesn't it? We can barely contain ourselves. *Dizzy Down the Rapids* won't win prizes for innovation.

The problem is that it's so darned slow (a lot slower than the original) and *Toobin'* is probably one of the most boring coin-ops in history anyway. Add to this some butterflies that sap away your energy and are virtually impossible to shoot down or avoid. Throw in enemies that require three hits to be waxed, making the whole thing very stop-start. Boil all this on a medium heat for a half an hour then tip it down the sink.

The scenery hardly changes, the gameplay (what there is) is repetitive in the extreme, and there really is nothing at all to make you want to play again. As a Type-In this would be quite impressive. As a commercial release it's pretty pathetic.

AA VERDICT 29%



■ Oh look, a waterfall! Phew, that's livened things up a bit, eh kids?

DRAGONS OF FLAME
KIXX • £3.99

A role-playing game, eh? This little adventure forms part of the *Dragonlance* series of *Advanced Dungeons & Dragons* games. We never reviewed it when it first came out, so it's time to make amends for that now.



■ In *Dragons of Flame* you control a fearsome mob of sword-waving hero types.

Dragons of Flame is the sequel to *Heroes of the Lance*, and is set in the same "war-torn World of Kryn" with "evil Draconian forces", together with "trolls, griffins and zombies" and "Takhisis, the Queen of Darkness". There are eight good dudes for you to take control of, and a massive labyrinth of rooms to explore.

We have to admit that we're not the biggest fans of this particular game style here at AA Towers. Ardent adventurers could well enjoy this game, but we found it all mighty dull.

There's a lot of boring walking involved, up and down identical looking corridors, and the actual combat bits require mindless beat-em-up style joystick waggling. This is hardly the sort of "careful thought and considered tactics" that people who like to call themselves things like Trokin the Goblin or Blodwyn the Witch always claim that adventure games are based on.

So what's the market for this game then? Too dull for your average gamester, too mindless for Balrog junkies... big *D & D* fans might want to add this one to their collection, but we found it all a bit lacking, to be honest.

AA VERDICT 69%



■ Percy was shocked to encounter a blue ghost with a strange limp and no feet.

ESCAPE FROM THE PLANET OF THE ROBOT MONSTERS
HIT SQUAD • £3.99

Domark's overrated sci-fi shoot-em-up has landed on the budget shelves of your local computer store. (Cue *Dr Who* style creepy music.) Be scared. Be very scared. Be more scared that a kitten that's accidentally wandered into Battersea Dogs' Home.

Escape from the Planet of the Robot Monsters is the title of a really naff low budget B-movie from the 1950s. The sort of film that people today buy posters of and rave about (for its great kitsch-appeal) but would never seriously consider watching all the way through.



■ Can you spot three mistakes our hero (in the red) is making in this picture? (Look behind you, you durned fool!)

The game's a bit like that too, actually. The oddest thing about it is the control method. It's that old *Asteroids* style left and right to rotate and up to move forward technique. Everything's made that bit more troublesome by the fact that pushing down on the joystick fires a bomb. You'll often end up firing off tons of bombs when all you really wanted to do is turn around.



■ Kerpow! Major league space fight going down or what? Quite fun after a while.

There are a host of evil robots and computer terminals to be blown away, and plenty of escalators and ladders to climb as you make your way around the complex. The scrolling is jerky, the graphics are blocky and the gameplay is totally tiresome. A brave attempt to recreate a game style of old, but *Escape* just isn't playable enough to really cut it. It's passable, but only just.

AA 46% VERDICT

MYTH
KIXX • £3.99

AA MASTERGAME



A few swift kicks will crack open the cauldron and unleash untold goodies.

Let's step back in time to a world of devils, demons and big shiny balls. Chris Rea's doing the driving and we're on the Road to Hell. Skeletons and platforms abound, and the words "*Stryker & The Crypts of Trogan*" pop into our heads like a stray nerve impulse. (*I'm terribly sorry about all this. I think Adam's been sitting in the sun for too long – ed.*)

Myth – History in the Making is a game of four distinct levels; *the Road to Hell, Ancient Greece, At Home with the Norse Gods* and *the Land of the Pharaohs*. Each level is an arcade adventure in itself,



This'll be one of the five spheres you need to nab to get off the level.

with five orbs needing to be found in order to move on to the next time zone.

The hazards involved are far too numerous to list here. Let's just say that when *Myth* appeared two years ago, *AA* games supremo Trenton Webb described it as "an arcade adventure that will go down in legend". And he wasn't wrong.

The Speccy port graphics might look a bit nobby in the cold light of 1992, but they're a lot more detailed than the graphics in Dizzy/Seymour games. Only Gremlin has ever made as good use of mode 1 graphics as System 3 managed here.

The controls take a little getting used to. You need to select weapons and spells from the scrolling icon bar at the top of the screen, and you need to hit Fire and push DOWN to jump straight up (!). But these little quibbles can't detract from the fact that this is a massive and very stylish adventure with lots of tough puzzles to solve. Bostin'.

AA 95% VERDICT

SHADOW WARRIORS
HIT SQUAD • £3.99

The games software industry seems to have an unusually high perception of the number of ninja warriors there are wandering round our city. If their games are to be believed, it would be impossible to even walk down to the corner shop for a bottle of milk without some pyjama-clad fighter leaping over you to do battle with a big bloke with a crowbar.

Shadow Warriors is one of 'those' games. You know, all sluggish graphics, tiresome combat and tons of enemies. The sort of game we dig out one of our allotted yawns for (we're only allowed to use the word 'yawn' five times in each issue).

The controls are simple to get to grips with, the graphics decent enough and the sounds passable (the tape motor is used for additional in-game



Haaaliee, chow chow, chud. Kaiee, phut phut pow. Douch. Splat. Whack. Tschow...



...spluff, splat, wallop. Pow. Kerchop. Douf. Pow. Whack. Whallop... etc etc etc...

effects). At the end of the day though, this is so walk-of-the-mill that there's really nothing else to say about it. It's a ninja beat-em-up the like of which you'll have seen before a hundred times. If you like this sort of thing, you'll like this sort of thing. If not, stay well away.

AA 65% VERDICT



They're ready for the off... *The Spy Who Loved Me* is a sad excuse of a racing game.

THE SPY WHO LOVED ME
HIT SQUAD • £3.99

The beach is covered in dead villains. Inside the villa we see several empty Martini bottles. And what's that over there? Well bronzed flesh, slightly wrinkly but with decent enough muscles, a few nasty scars and some nasty scratches. This can mean only one thing... Bond's back.

Yep, everyone's favourite hard drinking, womanising, rootin' tootin' secret agent dude has got himself a car that turns into a submarine, and a mission to go with it. Unfortunately this mission is somewhat wasted on a duff racing game that wouldn't look out of place on a ZX81.

There haven't been any really decent Bond games (only *Live & Let Die* came close, and that was never intended as a Bond licence when it was programmed). *The Spy Who Loved Me*, however, is just about the worst. You drive along a winding road, avoiding other cars, knocking over bollards and spinning off the road for no good reason.

Later levels take the 'race' to the ocean waves, but difficulty and boredom will probably prevent people getting very far into this one. We really don't like slagging games off, but we even less like the idea that people might be wasting their money on tripe like this. If you want better entertainment, try watching BBC2's *The Late Show*. Hur, hur.

AA 35% VERDICT



A bridge too far? Probably. You tend to spin off and crash straight after crossing it.

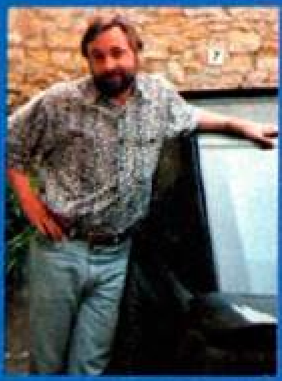
ring-a-ding

If you can't get hold of your desired game, get in touch with the publishers; they should be able to put you in touch with your nearest stockists. Here are the relevant telephone numbers:

CODEMASTERS • 0926 814132
HIT SQUAD • 061-832 6633
KIXX • 021-625 3388

Meet the Team

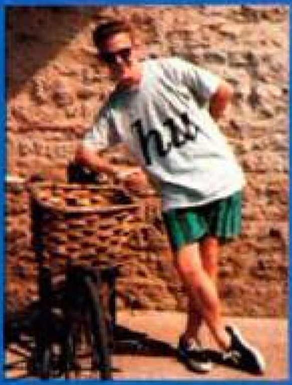
Writing your own game is the topic of this month's main feature, so we though we'd ask the *AA* posse what game they'd write if they had the chance...



ROD LAWTON
I'm a big fan of Grand Prix racing, so I'd write a motor racing simulator. I'd chuck in some special features, though, such as fully swivelling cockpit mirrors and possibly a heated gear lever knob.



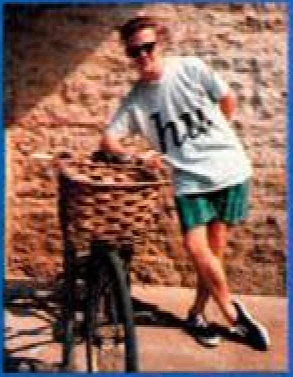
ADAM PETERS
I hate games like *Robocop* where you have to kill rioters. I'd write a game where you actually control a rioter, fighting loads of Robocops. That would be really ace. *(Oh dear – Ed)*



ADAM WARING
I've already written some games, including *Ninja Massacre* and *Lost Caves*. The first named is published by CodeMasters and the second by Players. They're totally excellent. Buy them (please).



MARYANNE B
I'd write a game where you didn't have to kill anything or fight anyone and nobody got hurt. It would feature pretty flowers and small fluffy animals. I'd call it *Love, Peace and Happiness*.

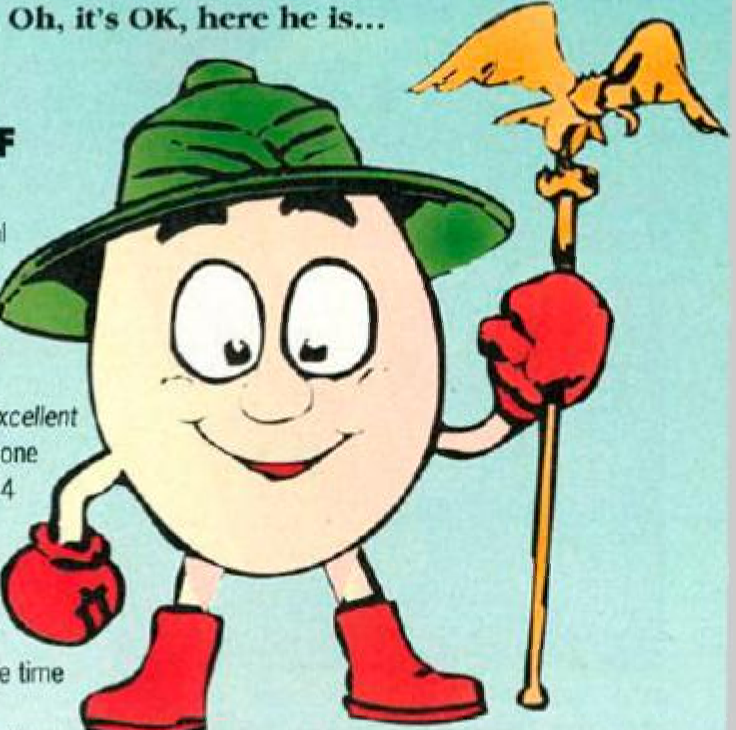


ADAM WARING
Look, I'm not joking, they really are excellent games. *Ninja Massacre* is on the *Quattro Combat* pack, and *Lost Caves* was on the *AA64* covertape. They're both absolute classics of our time.

on the GRAPEVINE

What are we doing right near the back of the magazine then? What's going on? And where's ADAM PETERS? Has anyone told him? He might have gone to the wrong page. Oh, it's OK, here he is...

DIZZY AND THE LOST TREASURE OF THE YOLK FOLK



We haven't heard much from our eggy pal since the *Dizzy's Excellent Adventures* compilation appeared at Christmas (it's still top of the full-price charts!), but here's the latest news from Dizzyland.

Flash! *Dizzy down the Rapids*, off the *Excellent Adventures* compo, is now out as a stand-alone game, priced £3.99 as usual. See page 44 for the review.

Flash! *Spellbound Dizzy*, the biggest Dizzy game to date and the mainstay of the *Excellent Adventures* compo, will also be wobbling around on the £3.99 shelves by the time you read this.

Flash! In a break with recent tradition, CodeMasters isn't planning a Dizzy compilation this coming Christmas. Instead it's going to be releasing a single game, *Dizzy and the Lost Treasure of the Yolk Folk*, priced at £9.99.

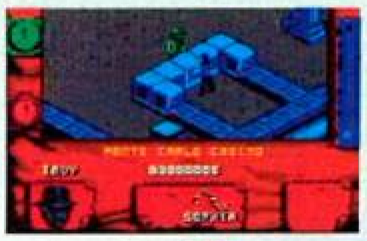
Ten quid is a lot of wonga for a single game, bearing in mind that the Codies would normally provide you with five for that price. However, the idea is to create an "interactive kit", with scratch 'n' sniff cards, surprise packages and gifts all provided along with the game. These would each come into play as the relevant point in the adventure is reached.

Sounds like a boss idea – we'll bring you more info when we get it.

Dizzy and the Lost Treasure of the Yolk Folk (CodeMasters) will be out at Christmas, priced £9.99 cassette. Dizzy Down the Rapids and Spellbound Dizzy (also both CodeMasters) are out now, priced £3.99 cassette.

INDIANA JONES AND THE FATE OF ATLANTIS

What a lot of long titles we've got in *Grapevine* this month. It really makes things hard for the art bods, but what the heck? We have to suffer them going on about *Neighbours* all the time, now they can suffer a bit too. Hur, hur, hur...



■ ***Indy 4* – a 3D explore-em-up we've heard good things of. [C64 screen]**



■ But what do you have to do? Er...? Ask us again next month. [C64 screen]

The Word Is Out



■ *Grell & Fella* is a game for schizophrenics everywhere. One minute you're a flying fairy, the next you're a burly thug.

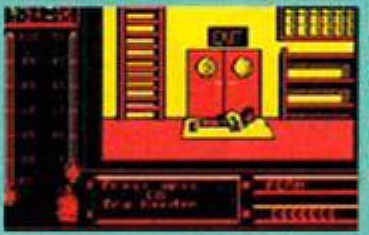
What's been occurring this month? Well, that nice young man from CodeMasters *(Richard Eddy – Ed)* came round with something in his trousers to show us. It was a disk featuring early preview versions of *Grell & Fella* and *DJ Puff*.

The games weren't in a fully working condition. In fact, the graphics were there and they moved and that was about it. No firing or anything like that. Other mags sometimes choose to review games in this condition, but we prefer to just chuck a couple of screenshots on the *Grapevine* page and say, "there's some screenshots here to peruse – full reviews when the games are finished."

Indy 4 is the film that never was, and the game that is (if you see what we mean). US Gold's long-awaited 3D explore-em-up is nearing completion, and we're all ready to give it a great big *Action Testing* next month.

The game lets you take control of both Indy and his chum Sophia Hapgood. It's all about some precious metal called Orichalcum. And there's lots of Nazis in it. What else? Not telling, you'll have to buy next month's issue (my, but we're cruel)...

Indiana Jones and etc (US Gold) will be out in a couple of months, priced £11.99 cassette and £16.99 disk. We review it next month.



■ *Superskills* - what a pile of old rabbit poo. We do not like it. Not at all.



■ *Superstar Soccer* - not a lot you can say in an area this small.

THE GARY LINEKER COLLECTION

To tie in with the European Championships, Kixx (the budget shoulder of US Gold) is knocking out *The Lineker Collection*, a pack consisting of four footie games and a wallchart. It's a 'budget compilation', but that only means it's priced a couple of quid less than full-price compos.

We haven't got a *Compilation Crazy* spot coming up for quite a while, so there's nowhere to review this. Sorry. Next... What's that, you say that Andrew from Kixx is on the phone? He's kidnapped Maryanne's teddy and he's going to cut its head off unless we review *The Lineker Collection* right this minute? Oh. Next... (*You wouldn't like it if that happened to your Edd the Duck, would you? – Maryanne.*) Edd, sniff, poor, poor Edd, blu blu blu, it's too horrible to contemplate. All right, let's review the compilation, though this is supposed to be the previews section and I'm sure someone is going to complain...

Of the three Gary Lineker licences on this compo, only *Superskills* (a sub-*Daley Thompson* joystick-waggling training program) doesn't cut it. Let's face it, a game based on training for a sport is a pretty stupid idea. Why not a game based on revising for an exam? That'd be even better.

Gary Lineker's Superstar Soccer has a few niggling bugs in it, but it's still a pretty excellent game. It's a combination of management and arcade sections, and in the match itself you control one particular player. A nice touch, though it does mean you have to hurl your player up and down the pitch to avoid missing the action. Lots of ace 'moving into position' techniques come into play in a game like this.

Gary Lineker's Hot Shot and *Italy 1990* are similar games, both with an overhead view and both blisteringly fast. These games finished 5th and 1st respectively in our footie games top ten (*AA79*). In other words, they're completely stonkin' soccer classics.

All in all, *The Lineker Collection* is a pretty excellent package and well worth the money. Nice one Kixx. Can we have the teddy back (please)?

The Lineker Collection (Kixx) is out now, priced £9.99 cassette and £14.99 disk.



■ *Italy 1990* is *AA*'s official favourite footie game of all time. We gave it a trophy and a big sponge cake.



■ *Gary Lineker's Hot Shot* is probably the fastest CPC footie game of all time. Zoom, it goes... zoom, zoom, zoom.

Everyone seems to be going video games mad at the moment. Failed comedian, and hapless *Gamesmaster* host, Dominik Diamond has got a regular spot on the Steve Wright show on Radio 1. On the first of these spots, Dominik explained the different types of computer available. "8-bit machines have got half a whopper memory," he explained, scientifically.

A lot of people have written in to express their disgust at the "rather infantile" antics of a rival magazine which has chosen to diss *AA* at every turn. Lots of you want to see us hitting back, but frankly we think that people seriously committed to the CPC shouldn't be fighting amongst themselves, so we'll just ignore them.

Suffice to say that any publication that gives a 'Bogus Game Award' to the games it thinks are best (check the phrase book, grandad) is doing a good enough job of embarrassing itself without us having to pitch in.

More hot gossip next month, dudes...



■ *DJ Puff* is a runny, jumpy collect-em-up, set on a desert island. You play the icky blue dragon in the centre of the screen.

The Charts

This chart is compiled by Gallup Ltd. (© European Leisure Software Publishers' Association Ltd. 1992)

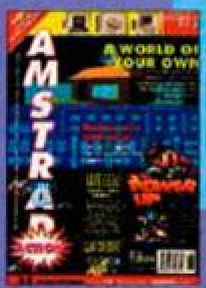
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1. **Dizzy's Excellent Adventures** C/masters
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3. **Terminator 2** Ocean
4. **Cartoon Collection** CodeMasters
5. **Dizzy Collection** CodeMasters
6. **Space Crusade** Gremlin Graphics
7. **The Simpsons** Ocean
8. **Man Utd Europe** Krisalis
9. **Titus the Fox** Titus/Palace
10. **Soccer Stars** Empire

BUDGET

1. **Rainbow Islands** Hit Squad
2. **Seymour goes to Hollywood** C/Masters
3. **Golden Axe** Tronix
4. **New Zealand Story** Hit Squad
5. **Manchester United** GBH
6. **Robocop** Hit Squad
7. **Bubble Bobble** Hit Squad
8. **Moonwalker** Kixx
9. **Magicland Dizzy** Codemasters
10. **Bubble Dizzy** Codemasters

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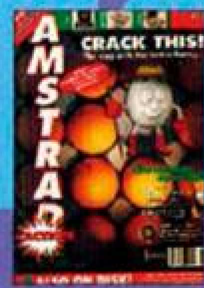
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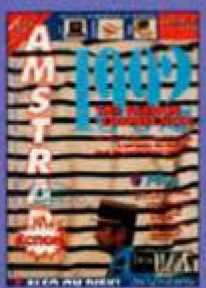
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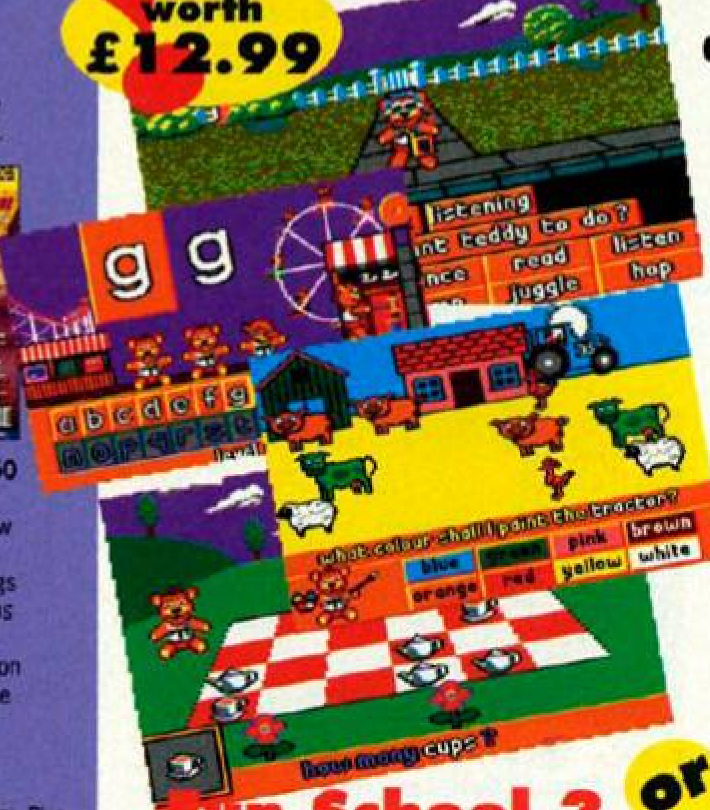
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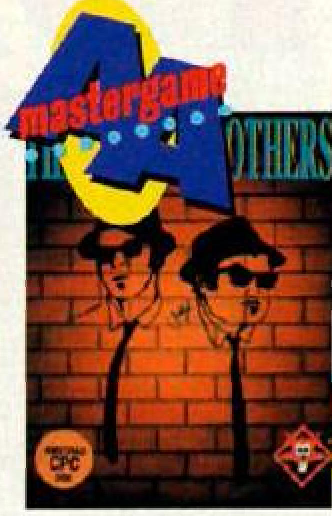
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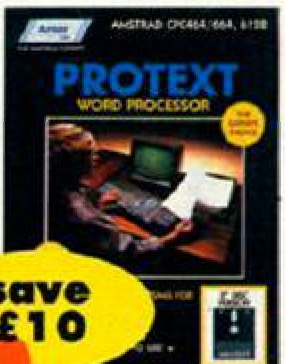
BLUES BROTHERS

Titus/Palace

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type-ins

Welcome to another batch of readers' programs plus JERRY GLENWRIGHT'S ongoing BASIC tutorial – everything you need to get the most out of your machine's inbuilt BASIC! If you've got any programs *you* think are good enough for publication, send them to: Type-Ins, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW... you could win £20!

MFFILE

WINNER! £20

The Multiface is one of the gamer's best tools for getting those otherwise unattainable high scores, right? Problem is, a month or two after buying a Multiface, and you've got more scraps of paper with obscure pokes on them than er, someone with lots of scraps of paper. Try digging out your favourite poke from that lot!

But now there's David Madden's MFFile poke database. Realising that the best way to store pokes was to assign the task to his CPC, David, of Farnborough, Hants, decided to write a dedicated database and MFFile is the result.

Consisting of just 4K, the program enables you to store up to 250 pokes together with the name of the game they apply to, address and effect – it's wonderful!

A must for dedicated cheats everywhere.

```
{LtAp} 10·'Multiface·Cat
{FpAu} 20·'For·Amstrad·Action·&·PD
{MvAw} 30·'By·David·Madden·on·464+·March·1992
{PxAr} 40·'All·REM's·must·be·typed·in
{NlAq} 50·ON·ERROR·GOTO·1160
{PnAw} 60·BORDER·3:PAPER·0:INK·0,3:INK·1,24
{MxBl} 70·DIM·name$(250):DIM·pok$(250):DIM·efc$(250)
{MmAx} 80·MODE·1:PEN·2:PRINT·STRING$(40,251)
{DqCk} 90·PEN·1:LOCATE·2,3:PRINT"WELCOME·TO·MULTIFACE·CATALOGUE·(v1,1)."
{KtBj} 100·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250)
{HtBm} 110·PEN·1:PLOT·135,80:DRAW·135,300:DRAW·510,300
{GkAx} 120·DRAW·510,80:DRAW·135,80
{MoAt} 130·PLOT·135,260:DRAW·510,260
{KxBk} 140·PEN·2:LOCATE·13,8:PRINT"A-LA-CARTE·MENU"
{NmCl} 150·LOCATE·11,11:PRINT"1,·INFORMATION.":LOCATE·11,13:PRINT"2,·ENTER·DATA."
{ErBx} 160·LOCATE·11,15:PRINT"3,·LOAD·FILE":LOCATE·11,17:PRINT"4,·SEARCH·A·FILE."
{CvBl} 170·LOCATE·11,19:PRINT"5,·END·PROGRAM."
{NwBs} 180·LOCATE·6,22:PRINT"<<·PLEASE·ENTER·YOUR·CHOICE·>>"
{CiBi} 190·a$=INKEY$:IF·a$=""·THEN·190
{MwBm} 200·a=VAL(a$):IF·a=0·OR·a>6·THEN·200·ELSE·210
{CoBk} 210·ON·a·GOSUB·220,320,670,840,1020
{ErAp} 220·REM·Information
{AmAx} 230·CLS:PEN·2:PRINT·STRING$(40,251)
{HsBr} 240·PEN·1:LOCATE·12,3:PRINT"<<·INFORMATION·>>"
{KtBj} 250·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250)
{GiAt} 260·PEN·1:LOCATE·1,8
{DxGq} 270·PRINT"·THIS·PROGRAM·WILL··GIVE·YOU·THE·OPTION··OF··CREATING·A··FILE·TO·STORE·ALL·YOUR··MULTIFACE··CHEATS·IN.·IT·CAN·HOLD·UPTO··250·ENTRIES·AT·ANY·ONE·TIME.·TO·CREATE··A··FILE··JUST·SELECT··OPTION·1·AT··THE··MENU·PAGE."
{NmHm} 280·PRINT"·IF·YOU··WISH·TO·ADD·MORE··POKES·INTO·A··SAVED·FILE·ALL·YOU·HAVE·TO·DO·IS··JUST··LOAD·THE··FILE·AND·THEN··SELECT·OPTION··ONE··AT··THE··MENU··PAGE·AND·WHAT·EVER··NUMBER·THE·LAST·FILE·FINISHED·AT,·THAT··IS··WHERE··YOU·YOU·WILL";
{FjAq} 290·PRINT"·START·FROM"
{JjBu} 300·PEN·2:LOCATE·7,23:PRINT"<<·PRESS·ANY·KEY·FOR·MENU·>>"
{MpAt} 310·CALL·&BB18:GOTO·80
{EmAr} 320·REM·Entering·Data
{MqAw} 330·CLS:PEN·2:PRINT·STRING$(40,251)
{JnBq} 340·PEN·1:LOCATE·11,3:PRINT"<<·ENTERING·DATA·>>"
{NjBk} 350·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250)
{MvBs} 360·PEN·1:LOCATE·7,7:PRINT"PRESS·[RETURN]·TO·END·INPUT"
{DtAx} 370·WINDOW#1,1,40,22,25:CLS#1
{AqAu} 380·PRINT#1,STRING$(40,140)
{BoBr} 390·LOCATE·4,24:PRINT"VALID·MULTIFACE·ALPHA·NUMERICAL·="
{OtBs} 400·PEN·2:LOCATE·4,25:PRINT"A·B·C·D·E·F·-·0·1·2·3·4·5·6·7·8·9"
{GpAs} 410·WINDOW#2,1,40,9,21:CLS#2
{MkAo} 420·FOR·b=1·TO·250
{CqAx} 430·IF·LEN(name$(b))>0·THEN·490
{NkAx} 440·PRINT#2,"CAT·NUMBER·";b;"="
{DsAx} 450·INPUT#2,"NAME·OF·GAME···:·",name$(b)
{BmAw} 460·IF·name$(b)=""·THEN·500
{BpBl} 470·INPUT#2,"ADDRESS·&·POKE·:·",pok$(b)
{AtBl} 480·INPUT#2,"EFFECT·OF·POKE·:·",efc$(b)
{MwAk} 490·NEXT
{KvBq} 500·CLS:PEN·1:LOCATE·13,5:PRINT"NO·MORE·ENTRIES"
{JtCi} 510·LOCATE·2,7:PEN·2:PRINT"DO·YOU·WISH·
```

BASIC tutorial... BASIC tutorial...

As I said last month, just about the most important concept in programming – programming with any language, is the loop. Without it, iterations, (processes repeated again and again) would have to be written into your program each time they were needed. Let's look at an example.

Say you wanted to collect medical history information from new hospital patients. Sounds like a perfect job for a computer right? A set of sensible questions would guide both questioner and questioned through standard medical history, enabling doctors to determine what state a new patient was in.

But without some kind of loop to ask those questions, the input statements would have to be written over and over again for each question – what a drag!

Which is where the loop comes in...

By using a loop, all you have to do is write a one-off code fragment which handles the questioning. Each time the program needs to ask a question, the looping lines of question code could be called ('called' means to invoke or use a sub-section of code).

And we could make it even simpler than that! The main program could consist of the loop of questioning code, and the program would loop around it again and again until some condition was met, say, reaching the end of the set questions, or a negative answer to a prompt such as "...continue?". Then the program could continue in a different vein, maybe calculating results or ending altogether.

See the possibilities?

And now let's look at a practical example using our string counting code from

```
       0·SAVE·THIS·FILE·(Y/N)";c$
{DqBj} 520·c$=INKEY$:IF·c$=""·THEN·520
{FnBl} 530·IF·c$="y"·OR·c$="Y"·THEN·550
{KoBl} 540·IF·c$="n"·OR·c$="N"·THEN·80
{CwAp} 550·REM·Save·File
{LkCl} 560·PEN·1:LOCATE·3,10:PRINT"PLEASE·ENTER·
       A·NAME·FOR·YOUR·FILE·-·"
{JtAu} 570·LOCATE·3,11:INPUT"=·",d$
{HoAt} 580·IF·d$=""·THEN·80
{BoAn} 590·OPENOUT·d$
{NsAo} 600·FOR·b=1·TO·250
{AlBj} 610·WRITE#9,name$(b),pok$(b),efc$(b)
{PjAk} 620·NEXT
{JlAo} 630·CLOSEOUT
{MxBu} 640·CLS:LOCATE·6,14:PRINT"<<·YOUR·FILE·IS
       ·NOW·SAVED·>>"
{FxCi} 650·LOCATE·1,16:PRINT"PLEASE·PRESS·ANY·KE
       Y·TO·RETURN·TO·MENU"
{JiAs} 660·CALL·&BB18:GOTO·80
{GrAq} 670·REM·Load·File
{LpAw} 680·CLS:PEN·2:PRINT·STRING$(40,251)
{OlBp} 690·PEN·1:LOCATE·12,3:PRINT"<<·LOAD·A·FIL
       E·>>"
{NjBj} 700·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250
       )
{BmEj} 710·PEN·1:LOCATE·1,7:PRINT"··PLEASE··MAKE
       ·SURE·YOU··HAVE·INSERTED····THE·CORRECT·
       TAPE/DISC·WHICH·CONTAINS····THE·FILE·YOU
       ·WANT·TO·LOAD."
{GvBs} 720·PEN·2:LOCATE·7,12:PRINT"PLEASE·NAME·T
       HE·FILE·TO·LOAD"
{HuAu} 730·LOCATE·7,13:INPUT"=·",e$
{FrAt} 740·IF·e$=""·THEN·80
{CmBs} 750·PEN·2:LOCATE·6,15:PRINT"<<·YOUR·FILE·
       IS·NOW·LOADING·>>"
{DvAn} 760·OPENIN·e$
{BlAp} 770·FOR·b=1·TO·250
{CiBj} 780·INPUT#9,name$(b),pok$(b),efc$(b)
{IuAk} 790·NEXT
{IpAn} 800·CLOSEIN
{BkBr} 810·LOCATE·6,15:PRINT"·<<·YOUR·FILE·IS·NO
       W·LOADED·>>"
{GuBs} 820·LOCATE·7,20:PRINT"<<·PRESS·ANY··KEY·F
       OR·MENU·>>"
{IlAs} 830·CALL·&BB18:GOTO·80
{CoAq} 840·REM·Search·File
{GwAx} 850·CLS:PEN·2:PRINT·STRING$(40,251)
{AmBp} 860·PEN·1:LOCATE·12,3:PRINT"<<·SEARCH·A·F
       ILE·>>"
{GjBj} 870·PEN·2:LOCATE·1,5:PRINT·STRING$(40,250
       )
{EtBs} 880·LOCATE·8,9:PRINT"<·PRESS·ANY·KEY·WHEN
       ·READY·>
{KvBq} 890·PEN·1:LOCATE·2,11:INPUT·"NAME·TO·FIND
       ·:";find$
{CxAu} 900·IF·find$=""·THEN·80
{CnAv} 910·WINDOW#4,1,40,13,25:CLS#4·
{KjAp} 920·FOR·b=1·TO·250
{GqAk} 930·f=0
{BpBl} 940·f=INSTR(f+1,LOWER$(name$(b)),LOWER$(f
       ind$))
{EjAq} 950·IF·f=0·THEN··990
{EnBm} 960·PEN·2:PRINT#4,b;name$(b);"·";pok$(b)
{NsAt} 970·PRINT#4,TAB(4);efc$(b)
{PqAm} 980·GOTO·940
{GiAk} 990·NEXT
{OnAx} 1000·PRINT#4:PRINT#4,"SEARCH·FINISHED"
{DkAt} 1010·CALL·&BB18:GOTO·80
{MpAr} 1020·REM·End·Program
{BmAv} 1030·CLS:PRINT·STRING$(40,251)
{BmBt} 1040·PEN·1:LOCATE·12,3:PRINT"<<·END·PROGR
       AM·>>"
{LiBj} 1050·PEN·2:LOCATE·1,5:PRINT·STRING$(40,25
       0)
{HiDm} 1060·PEN·1:LOCATE·3,9:PRINT"HOW·DO·YOU·WI
       SH·TO·END·THE·PROGRAM":LOCATE·3,11:PRINT
       "EITHER·BY·-"
{GqBn} 1070·LOCATE·5,13:PRINT"1,·RETURNING·TO·BA
       SIC"
{OuBw} 1080·LOCATE·5,14:PRINT"(WITH·PROGRAM·STIL
       L·IN·MEMORY)"
{LpBr} 1090·LOCATE·5,17:PRINT"2,·RESETING·THE·MA
       CHINE"
{AnBm} 1100·PEN·2:LOCATE·2,19:PRINT"PLEASE·SELEC
       T·"
{FsBi} 1110·g$=INKEY$:IF·g$=""·THEN·1110
{EpBo} 1120·g=VAL(g$):IF·g=0·OR·g>2·THEN·1120·EL
       SE·1130
{AlAs} 1130·ON·g·GOSUB·1140,1150
{PtBq} 1140·CLS:BORDER·1:INK·0,1:INK·1,24:PEN·1:
       END·
{IjAm} 1150·CALL·0
{IoBt} 1160·PRINT"SORRY·THERE·IS·ANY·ERROR·IN·LI
       NE";ERL:END
```

LEDGER

WINNER! £20

When home computers first became available to the great unwashed (ie you lot), many self-styled experts decided that the machines must be put to sensible uses – teaching the kids, tracking your finances and generally helping out around the home. Having fun with your silicon was considered irresponsible.

They were wrong of course, as time and ten thousand or more games have proved.

But computers are perfectly adapted to shoving around otherwise incomprehensible figures, and Paul Hefferman's Ledger is here to show you why.

The program enables budding billionaires to keep an eye on expenditure by providing an on-screen ledger showing input and expenditure. You can open as many ledgers as disk space allows, edit and print them.

```
{LwAt} 10·'·Ledger·1991·Paul·Heffernan
{ImBr} 20·DIM·m$(12),inc(20),inc$(20),expend(20)
       ,expend$(20)
{EmBj} 30·MODE·2:INK·0,26:INK·1,0:BORDER·26
{HiCk} 40·INPUT·"Load·Opening·Balance·or·new·Ope
       ning·Balance·(Press·N·for·new·balance)";
       a$
{OrDj} 50·IF·UPPER$(a$)="N"·THEN·INPUT·"Sum·of·m
       oney·";bal:OPENOUT·"balance":WRITE·#9,ba
       l:CLOSEOUT
{JkBq} 60·OPENIN·"balance":INPUT·#9,bal:sp=bal:M
       16=bal
{BqBu} 70·DATA·Jan,Feb,Mar,April,May,June,July,A
       ug,Sept,Oct,Nov,Dec
{EwBp} 80·FOR·p=1·TO·12:READ·A$:m$(p)=a$:NEXT:m=
       1
{BpAm} 90·MODE·2
{IkBj} 100·LOCATE·1,1:PRINT·"Month·:";m$(m)
{LpAw} 110·LOCATE·20,1:PRINT·"Title·";t$
{PxBv} 120·LOCATE·58,1:PRINT·"Balance·";USING·"#
       ########,.##";bal
{PoBo} 130·LOCATE·1,2:FOR·p=1·TO·80:PRINT·"-
       ";:NEXT
{PkAq} 140·WINDOW·1,80,25,3
{AkBs} 150·LOCATE·38,2:PRINT·"Menu":LOCATE·38,3:
       PRINT·"----"
{HlBm} 160·LOCATE·32,4:PRINT·"1.·Change·Month"
{MwBj} 170·LOCATE·32,6:PRINT·"2.·Enter·Title"
{OvBm} 180·LOCATE·32,8:PRINT·"3.·Enter/Edit·Ledg
       er"
{ApBk} 190·LOCATE·32,10:PRINT·"4.·Save·Ledger"
{BwBl} 200·LOCATE·32,12:PRINT·"5.·Load·Ledger"
{DbBl} 210·LOCATE·32,14:PRINT·"6.·View·Ledger"
{IqBm} 220·LOCATE·32,16:PRINT·"7.·Print·Ledger"
{AsBk} 230·LOCATE·32,18:INPUT·"Enter·no.";n
{KqBn} 240·ON·n·GOSUB·260,310,330,690,770,820,90
       0
{AqAm} 250·GOTO·90
{LmCp} 260·CLS:WINDOW·1,80,25,1:FOR·p=1·TO·12:LO
       CATE·36,p+5:PRINT·p;m$(p):NEXT
{CwCq} 270·WINDOW·1,80,25,1:bal=g:LOCATE·58,1:PR
       INT·"Balance·";USING·"########,.##";bal
```

BASIC tutorial... BASIC TUTORIAL...

last month. This is what it looked liked:

```
10 REM This is a program to count the characters in a string
20 INPUT "Please type a string"; A$
30 PRINT "The string '"A$"' is "LEN (A$) "characters long."
40 END
```

You'll remember that if we wanted to use the program a second or third time, we had to run it again. Let's suppose, though, that you know exactly how many strings you want to count. Here's how we could use a loop:

```
10 REM This is a program to count the characters in a string
20 FOR CNT=1 to 5
30 A$=""
40 INPUT "Please type a string"; A$
50 PRINT "The string '"A$"' is "LEN (A$) "characters long."
60 NEXT CNT
70 END
```

Regular readers will remember their brief introduction to the FOR ... NEXT construction in the first instalment of the BASIC tutorial, but this is the first time we've used it in anger. So what's happening?

```
{IxBl} 280·LOCATE·36,20:PRINT·"Enter·month·no."
{CqBm} 290·LOCATE·8,1:INPUT·m:IF·m<1·OR·m>12·THEN·290
{NuAm} 300·GOSUB·90
{HiBq} 310·CLS:WINDOW·1,80,25,1:LOCATE·26,1:INPUT·"",t$
{MmAm} 320·GOSUB·90
{GvDn} 330·inc$(1)="Opening·Balance":inc(1)=bal:ak47=bal:CLS:MOVE·320,0:DRAWR·0,370:MOVE·325,0:DRAWR·0,370:MOVE·315,0:DRAWR·0,370
{LuCp} 340·LOCATE·1,2:PRINT·"Opening·Balance·";:LOCATE·27,2:PRINT·USING·"#########,.##";bal
{JqAn} 350·sp=bal
{PnDq} 360·FOR·p=2·TO·20:LOCATE·1,p+1:sc$=inc$(p):sc=inc(p):INPUT·"",inc$(p):IF·inc$(p)="*"·THEN·inc$(p)="":GOTO·390
{HtBl} 361·IF·inc$(p)=""·THEN·inc$(p)=sc$
{CmAw} 362·IF·inc(p)=0·THEN·inc(p)=sc
{CrAx} 370·LOCATE·27,p+1:INPUT·"",inc(p)
{CnDi} 380·LOCATE·1,p+1:PRINT·inc$(p);"........":LOCATE·27,p+1:PRINT·USING"#########,.##";inc(p):NEXT
{LiEp} 390·y=1:FOR·p=1·TO·20:LOCATE·43,p+1:sc$=expend$(p):sc=expend(p):INPUT·"",expend$(p):IF·expend$(p)="*"·THEN·expend$(p)="":GOTO·420
{KpBq} 391·IF·expend$(p)=""·THEN·expend$(p)=sc$
{BmBn} 392·IF·expend(p)=0·THEN·expend(p)=sc
{OsBj} 400·LOCATE·68,y+1:INPUT·"",expend(p)
{AjDu} 410·LOCATE·43,p+1:PRINT·expend$(p);"........":LOCATE·68,p+1:PRINT·USING"#########,.##";expend(p):y=y+1:IF·y=22·THEN·CLS
{CmAm} 415·NEXT
{KsBw} 420·v=0:FOR·p=1·TO·1000:v=v+inc(p):IF·inc(p)=0·THEN·430·ELSE·NEXT
{MiCk} 430·b=0:FOR·c=1·TO·1000:b=b+expend(c):IF·expend(c)=0·THEN·440·ELSE·NEXT
{AmCv} 440·IF·c>p·THEN·LOCATE·27,c+4:PRINT·"-------------":LOCATE·68,c+4:PRINT·"-------------"
{CrCu} 450·IF·p>c·THEN·LOCATE·27,p+4:PRINT·"-------------":LOCATE·68,p+4:PRINT·"-------------"
{EsCt} 460·IF·p=c·THEN·LOCATE·27,p+4:PRINT·"-------------":LOCATE·68,p+4:PRINT·"-------------"
{DoAv} 470·IF·v>b·OR·v=b·THEN·530
{HrAt} 480·IF·b>v·THEN·610
{IqCq} 490·WINDOW·1,80,25,1:bal=g:LOCATE·58,1:PRINT·"Balance·";USING·"#########,.##";bal
{ImBj} 495·IF·prntr$="OKAY"·THEN·RETURN
{PlCr} 500·WINDOW·1,80,25,1:LOCATE·28,2:PRINT·"Press·any·key·for·menu":WHILE·INKEY$="":WEND
{OnBv} 510·LOCATE·1,2:FOR·p=1·TO·80:PRINT·"-";:NEXT:WINDOW·1,80,25,3
{EuAr} 520·sd=bal:RETURN
{AxCi} 530·IF·c>p·OR·c=p·THEN·LOCATE·27,c+5:PRINT·USING"#########,.##";v
{IuBx} 540·IF·p>c·THEN·LOCATE·27,p+5:PRINT·USING"#########,.##";v
{EkCj} 550·IF·c>p·OR·c=p·THEN·LOCATE·68,c+5:PRINT·USING"#########,.##";v
{NlBx} 560·IF·p>c·THEN·LOCATE·68,p+5:PRINT·USING"#########,.##";v
{MwDm} 570·IF·c>p·OR·c=p·THEN·LOCATE·43,c+3:PRINT·"Closing·Balance·";:LOCATE·68,c+3:PRINT·USING"#########,.##";v-b
{IqDl} 580·IF·p>c·THEN·LOCATE·43,p+3:PRINT·"Closing·Balance·";:LOCATE·68,p+3:PRINT·USING"#########,.##";v-b
{FlAl} 590·g=v-b
{AnAm} 600·GOTO·490
{CvCi} 610·IF·c>p·OR·c=p·THEN·LOCATE·27,c+5:PRINT·USING"#########,.##";b
{NtBx} 620·IF·p>c·THEN·LOCATE·27,p+5:PRINT·USING"#########,.##";b
{MkCj} 630·IF·c>p·OR·c=p·THEN·LOCATE·68,c+5:PRINT·USING"#########,.##";b
{ImBx} 640·IF·p>c·THEN·LOCATE·68,p+5:PRINT·USING"#########,.##";b
{JxDm} 650·IF·c>p·OR·c=p·THEN·LOCATE·1,c+3:PRINT·"Closing·Balance·";:LOCATE·27,c+3:PRINT·USING"#########,.##";b-v
{OoDm} 660·IF·p>c·THEN·LOCATE·1,p+3:PRINT·"Closing·Balance·";:LOCATE·27,p+3:PRINT·USING"#########,.##";b-v
{CxAm} 670·g=v-b
{DvAm} 680·GOTO·490
{NtBv} 690·CLS:CAT:INPUT·"Filename·:",f$:IF·LEN(f$)<1·OR·LEN(f$)>8·THEN·90
{CmAn} 695·ak47=bal
{MvAw} 700·OPENOUT·f$:WRITE·#9,m$(m),t$,bal
{BqBi} 710·IF·c>p·THEN·WRITE·#9,c:n=c
{JxBi} 720·IF·p>c·THEN·WRITE·#9,p:n=p
{ImAw} 730·IF·c=p·THEN·WRITE·#9,c:n=c
{NxCk} 740·FOR·p=1·TO·20:WRITE·#9,inc(p),inc$(p),expend(p),expend$(p):NEXT
{MpAo} 750·CLOSEOUT
{HwAm} 760·GOTO·90
{FnBw} 770·CLS:CAT:INPUT·"Filename·:",f$:IF·LEN(f$)<1·OR·LEN(f$)>8·THEN·90
{NsAw} 780·OPENIN·f$:INPUT·#9,m$(m),t$,bal,n
{GuCk} 790·FOR·p=1·TO·20:INPUT·#9,inc(p),inc$(p),expend(p),expend$(p):NEXT
{IpAn} 800·CLOSEIN
{EqAn} 810·GOTO·90
{MnCm} y=1:CLS:MOVE·320,0:DRAWR·0,370:MOVE·325,0:DRAWR·0,370:MOVE·315,0:DRAWR·0,370
{DmCs} 830·bal=sp:LOCATE·1,2:PRINT·"Opening·Balance·":LOCATE·27,2:PRINT·USING·"#########,.##";sp
{EmCt} 835·LOCATE·43,2:PRINT·expend$(1);"........":LOCATE·68,2:PRINT·USING"#########,.##";expend(1)
{GrAq} 840·FOR·p=2·TO·20
{BqAx} 845·IF·y=22·THEN·GOSUB·2000
{BrAm} 846·y=y+1
{FkBq} 847·IF·inc$(p)=""·AND·expend$(p)=""·THEN·880
{OqAt} 848·IF·inc(p)=0·THEN·855
{IiCr} 850·LOCATE·1,y+1:PRINT·inc$(p);"........":LOCATE·27,y+1:PRINT·USING"#########,.##";inc(p)
{ClAx} 855·IF·expend(p)=0·THEN·865
{FwCw} 860·LOCATE·43,y+1:PRINT·expend$(p);"........":LOCATE·68,y+1:PRINT·USING"#########,.##";expend(p)
{LwAk} 865·NEXT
{JwAs} 880·nb$="Y":GOSUB·420
{JsBi} 885·IF·prntr$="OKAY"·THEN·RETURN
{JsAs} 890·bal=sd:GOTO·90
{DwBk} 900·prntr$="OKAY":GOSUB·820:PRINT·#8,""
{KoCl} 901·x=1:l=1:FOR·p=1·TO·2*80:LOCATE·x,l:t$=COPYCHR$(#0):PRINT·#8,t$;:x=x+1
{FkBo} 902·IF·x=81·THEN·x=1:l=l+1:PRINT·#8,""
{PrAl} 903·NEXT
{OqAv} 910·x=1:l=3:FOR·p=1·TO·22*80
{FjAw} 920·LOCATE·x,l:x$=COPYCHR$(#0)
{FkAp} 930·PRINT·#8,x$;
{CuBq} 940·x=x+1:IF·x=81·THEN·x=1:l=l+1:PRINT·#8,""
{OwAt} 950·NEXT:IF·p>21*80·THEN·250·
```

STAR DODGE



Here's an absolute corker! Star Dodge, like all the best games, is the simplest of ideas coupled with the funkiest of fast gameplay to provide a space-based thrash that will keep you playing long after the rest are gathering dust at the bottom of your toy-box.

Play area consists of star field dotted around with killer meanies (asterisks actually, but use your

BASIC tutorial... BASIC tutorial...

Well, line 20 is saying: I want to loop around the following code 5 times, so set up a loop counter called CNT (the shorter a loop counter the better – I'll tell you why later – but do keep 'em obvious) and specify how many times I want to loop. Got that?

BASIC now knows we want to loop five times. So let's start looping!

Line 30 ensures that there's nothing in the string variable A$ and that its made null again after each progression through the loop.

Lines 40 and 50 are our standard input prompt, variable assignment and calculations.

Now here comes the second part of that FOR ... NEXT loop construction. Line 60 says: Fine. We've done our stuff once, let's run through the next occurrence of CNT (currently equal to 1) and loop again. BASIC follows this instruction and zips back to line 30 (NOT line 20. We don't want to reassign the loop counter all over again else CNT will always be one and the loop will be endless!).

And on the process goes. BASIC remembers what CNT equals and after each time through the loop increases its value by one until the value equals six (not five. Otherwise we'd only go around the loop four times...). When that happens, the loop ends and the rest of the program is processed.

You can check what's happening to that loop counter by adding the line:

```
55 PRINT CNT
```

imagination, OK?). You have to cross the star field without hitting the meanies and squeeze through a black hole at the far side of the screen.

The trouble is, your ship moves diagonally across the screen at a tremendous rate, and the only way to keep it from hitting anything is to alter the direction of the diagonal with the space bar – it's fiendishly difficult and very, very addictive. Don't believe me? Try it for yourselves! Just goes to show that sometimes the simplest ideas are the best...

Star Dodge is the code of a clever chap by the name of Graham French. Well done young Master French, twenty quid's winging its way to you as I write.

```
{AoAu} 10·'**····STAR·DODGER·v2···**
{IoAs} 20·'**·G.·French·(14-2-92)·**
{BsAj} 30·'
{KvAo} 40·'**·SET·UP·**
{FiAr} 50·DEFINT·a-z:GOSUB·1110
{FsAu} 60·ENV·1,15,-1,10:ENT·1,15,-1,10
{PtAq} 70·'**·INSTRUCTIONS·**
{EvAs} 80·MODE·1:fin=0:q=5:sp=0
{DmBj} 90·INK·0,0:BORDER·0:INK·2,26:INK·3,0
{AmAt} 100·INK·1,21:SPEED·INK·2,10
{GkBo} 110·a$="StarDodger":a=17:y=1:GOSUB·1160
{FmCl} 120·a$="Avoid·the·killer·Asterisks,·and·
       seek·the":a=2:y=5:GOSUB·1160
{MsBu} 130·a$="wondrous·Nextscreen·Gap.":a=10:y
       =6:GOSUB·1160
{KwBo} 140·a$="Use·SPACE·to·climb":a=13:y=13:GO
       SUB·1160
{IjCi} 150·a$="Do·you·want·the·slow·speed·Y/N":
       a=8:y=16:GOSUB·1160
{AmCt} 160·a$=UPPER$(INKEY$):IF·a$="Y"·THEN·sd=
       1·ELSE·IF·a$="N"·THEN·sd=0·ELSE·160
{HkAn} 170·GOSUB·550
{AkAv} 180·'**·GAME·SCREEN·**
{AjAt} 190·MODE·1:yt=228:yb=172
{BoBk} 200·DRAWR·629,0,2:DRAWR·0,170:MOVER·0,60
{JkBl} 210·DRAWR·0,169:DRAWR·-629,0:DRAWR·0,-
       399
{KnBj} 220·DRAWR·0,2:DRAWR·627,0:DRAWR·0,168
{GxBl} 230·MOVER·0,60:DRAWR·0,167:DRAWR·-625,0
{PjBl} 240·DRAWR·0,-
       399:MOVE·636,0:DRAW·636,399,3
{AuBl} 250·MOVE·638,0:DRAW·638,399:PLOT·-1,-1,1
{HrBs} 260·IF·q)=45·THEN·INK·1,21,0:sp=sp+1:SPE
       ED·INK·3,1+sp
{LqAx} 270·IF·sd·THEN·d=3·ELSE·d=4
{DkAr} 280·TAG:FOR·s=1·TO·q
{DuAw} 290·MOVE·50+RND*561,20+RND*361
{MiBk} 300·PRINT"*";:NEXT:TAGOFF:MOVE·0,200
{AtBn} 310·IF·q)55·THEN·EVERY·25,2·GOSUB·1230
{KuAl} 320·dd=d
{JlAr} 330·'**·THE·GAME·**
{BqAp} 340·DRAWR·dd,d,2
{IoBo} 350·IF·INKEY(47)=0·THEN·d=dd·ELSE·d=-dd
{BtAq} 360·t=TESTR(2,d/2)
{HsAu} 370·IF·t=1·OR·t=2·GOTO·410
{JtBo} 380·IF·t=3·THEN·SOUND·1,50,150,15,1,1:GO
       TO·510
{LxAw} 390·MOVER·-2,-d/2:GOTO·340
{KqAs} 400·'**·HIT·SUMMIT'·NASTY·**
{MoBj} 410·i=REMAIN(2):SOUND·1,0,150,15,1,,31
{DvBj} 420·BORDER·26:INK·0,26:INK·1,0:INK·2,0
{NtAq} 430·INK·1,21:INK·2,26
{OmBk} 440·MODE·1:BORDER·0:INK·0,0:scr=(q/5)-1
{HjBu} 450·a$="YOU·WERE·ZAPPED·BY·A·KILLER·ASTE
       RISK":a=4:y=1:GOSUB·1160
{BwCk} 460·a$="Number·of·screens·completed·=·"+
       STR$(scr):a=6:y=13:GOSUB·1160
{AsAn} 470·GOSUB·550
{PsAv} 480·IF·scr)h(6)·THEN·GOTO·600
{GtAp} 490·fin=1:GOTO·600
{PoAs} 500·'**·COMPLETED·SCREEN·**
{OoAs} 510·MODE·1:i=REMAIN(2)
{MlBw} 520·a$="YOU·MADE·IT·THROUGH·THE·KILLER·A
       STERISKS":a=2:y=1:GOSUB·1160
{LjBw} 530·a$="Stand·by·for·Screen·"+STR$((Q/5)
       +1):a=11:y=13:GOSUB·1160
{FiAu} 540·GOSUB·550:q=q+5:GOTO·190
{GlBl} 550·a$="Press·any·key·to·continue."
{CiAv} 560·a=9:y=25:GOSUB·1160
{MmAx} 570·WHILE·INKEY$()"":WEND:CALL·&BB18
{FvAm} 580·RETURN
{FsAx} 590·'**·ENTER·NAME·INTO·HALL·OF·FAME·**
{KqAv} 600·MODE·0:s=2:EVERY·5·GOSUB·1060
{OuAs} 610·EVERY·3,1·GOSUB·1070
{HqAt} 620·IF·fin·THEN·920
{PkBk} 630·FOR·n=3·TO·15:INK·n,0:NEXT:PEN·1
{AiBj} 640·LOCATE·4,1:PRINT"**·WELL·DONE·**"
{KxAs} 650·INK·2,26:PEN·2:PRINT
{MqBk} 660·PRINT"·YOU·ARE·ONE·OF·THE·":PRINT
{ErAx} 670·PRINT"··BEST·STARDODGERS··":PRINT
{GjAw} 680·PRINT"··IN·THE·UNIVERSE."
{InAs} 690·a$="ENTER·YOUR·NAME"
{KmBj} 700·PRINT:PRINT:PRINT:PRINT·TAB(3);
{LmAv} 710·z=3:FOR·n=1·TO·LEN(a$)
{KlBr} 720·x$=MID$(a$,n,1):IF·x$="·"·THEN·PRINT
       "·";:GOTO·740
{MuAr} 730·PEN·z:PRINT·x$;:z=z+1
{PmAj} 740·NEXT
{GjBl} 750·LOCATE·7,15:PEN·2:PRINT")------("
{EpBk} 760·h$="":FOR·n=1·TO·7:LOCATE·n+7,15
{CtBn} 770·a$=UPPER$(INKEY$):IF·a$=""·THEN·770
{JjAx} 780·IF·a$=CHR$(13)·THEN·n=8:GOTO·830
{OxBl} 790·IF·a$=CHR$(127)·THEN·n=8:q=1:GOTO·83
       0
{OoBi} 800·IF·a$("·"·OR·a$)"z"·THEN·770
{CxAt} 810·IF·n=7·THEN·770
{JrAv} 820·PEN·1:PRINT·a$;:h$=h$+a$
{MqBi} 830·NEXT·n:IF·q=1·THEN·q=0:GOTO·750
{MvAt} 840·h$(7)=h$:h(7)=scr
{OmBi} 850·w=1:WHILE·w:w=0:FOR·i=2·TO·7
{GxBk} 860·IF·h(i))h(i-1)·THEN·GOSUB·880
{OmAr} 870·NEXT:WEND:GOTO·920
{IpAx} 880·a$=h$(i):a=h(i):h$(i)=h$(i-1)
{PtBj} 890·h(i)=h(i-1):h$(i-1)=a$:h(i-1)=a
{JvAp} 900·w=1:RETURN
{GmAv} 910·'**·DISPLAY·HALL·OF·FAME·**
{LjBm} 920·CLS:PEN·1:PRINT"··**·THE·TOP·SIX·**"
{HvAw} 930·x=REMAIN(1):RESTORE·950
{OnAw} 940·FOR·n=2·TO·7:READ·i:INK·n,i:NEXT
{GuAr} 950·DATA·6,15,24,21,11,8
{EwBi} 960·LOCATE·1,4:FOR·n=1·TO·6:PEN·n+1
{FiBk} 970·PRINT·USING"··\·········\··###";h$(n
       ),h(n)
{LrAn} 980·PRINT:NEXT
{DvAw} 990·LOCATE·1,25:INK·8,26:PEN·8
{HnAu} 1000·PRINT"···PRESS·SPACE·BAR";
{GjAs} 1010·WHILE·INKEY$()"":WEND
{PvBj} 1020·WHILE·INKEY$()"·":WEND:MODE·1
{MoBk} 1030·INK·3,26:INK·1,26:INK·2,26:PEN·1
{DjAs} 1040·x=REMAIN(0):GOTO·80
{EoAs} 1050·'**·INK·FLASH·INTERRUPTS·**
{FpAw} 1060·INK·1,INT(RND*26)+1:RETURN
{FsBj} 1070·IF·s)15·THEN·s=15:t=0:st=-1
{NlAw} 1080·IF·s(3·THEN·s=3:t=21:st=1
{AqAu} 1090·INK·s,t:s=s+st:RETURN
{DlAq} 1100·'**·INITIALISE·**
{JsBi} 1110·DIM·h$(7),h(7):RESTORE·1130
{JiBj} 1120·FOR·n=1·TO·6:READ·h$(n),h(n):NEXT
{KjBr} 1130·DATA·GRAHAM,12,EGGY,10,NOB,8,MARK,6
       ,SARAH,4,HILARY,2
{DpAo} 1140·RETURN
{CjAu} 1150·'**·MESSAGE·PRINT·ROUTINE·**
{DnBj} 1160·INK·1,21:FOR·n=a·TO·a+LEN(a$)-1
{IvAx} 1170·LOCATE·n,y:PEN·1:PRINT"*"
{GnAt} 1180·LOCATE·n-1,y:PEN·2
{OuAx} 1190·PRINT·MID$(a$,n-(a-1),1):NEXT
{DlBi} 1200·LOCATE·a+LEN(a$)-1,y:PRINT"·"
{PkAn} 1210·RETURN
{BrAw} 1220·'**·GAP·CLOSE·INTERRUPT·**
{NjAp} 1230·x1=XPOS:y1=YPOS
{KxAu} 1240·PLOT·629,yb,2:PLOT·629,yt
{HoAv} 1250·PLOT·627,yb:PLOT·627,yt
{GtBm} 1260·yt=yt-2:yb=yb+2:MOVE·x1,y1:RETURN
```

BASIC tutorial... BASIC TUTORIAL...

Now the value of CNT is printed each time the loop is processed.

One important feature that you should bear in mind about the FOR ... NEXT loop is that it is always traversed at least once. The second important feature of any loop is that you should NEVER jump out of them before they're complete. That is, to do this:

```
55 IF CNT=3 THEN GOTO 250
```

What's happening here is that we're checking for some condition within the loop, then prematurely ending its process and exiting – an indescribably naughty thing to do for reasons which will become clear as we progress through the tutorials! (Although at this stage, it may seem that there'd never be any need to jump out, and that there'd be no harm if you did.)

There are ways and means to quit loops without sending your CPC running for cover, and we'll discuss them later.

Back to the loop. You now have a fragment of code which will perform a given task the requisite number of times without any intervention from you (except, of course, to type the strings.) Funky, right? But still bare-bones stuff. What happens if you give the program to someone else and they run it and type in gibberish, control codes and the like? No problem. All we have to do is add some error checking.

But that, says Hammy Hamster, is another story. See you next month.

top 10

1) ELITE
(FIREBIRD)

Cult space adventure that's a world in itself. Totally engrossing. **94%** (AA5)

2) F-16 COMBAT PILOT
(DIGITAL INTEGRATION)

Six missions to tackle in this excellent flight sim from last year. **92%** (AA68)

3) CHUCK YEAGER'S ADVANCED FLIGHT SIMULATOR
(ELECTRONIC ARTS)

At the wheel of a P-51 Mustang (or one of 13 other planes), practice acrobatics and the like. **91%** (AA42)

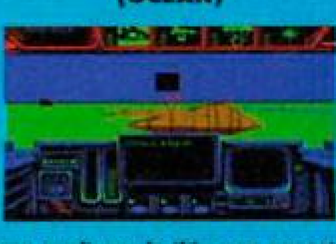
4) FIGHTER BOMBER
(ACTIVISION)

If it's blasting action you're after, this hi-tech simulator is the one for you. **89%** (AA59)

5) ADVANCED TACTICAL FIGHTER
(DIGITAL INTEGRATION)

Futuristic and fast combat sim, with buckets of strategy and arcade action. **94%** (AA31)

6) BATTLE COMAND
(OCEAN)



Ten missions await you in this very recent, and very good, tank simulator. **83%** (AA77)

7) GUNSHIP
(MICROPROSE)

Slightly wrinkly, but still mighty addictive, helicopter combat game. **82%** (AA37)

8) TOMAHAWK
(DIGITAL INTEGRATION)



Naff old vector graphics can't spoil the appeal of the CPC's first really classy flight sim. **92%** (AA8)

9) F-15 STRIKE EAGLE
(MICROPROSE)

Kill lots of foreigners on behalf of the Americans. A good game with a sick plot. **84%** (AA24)

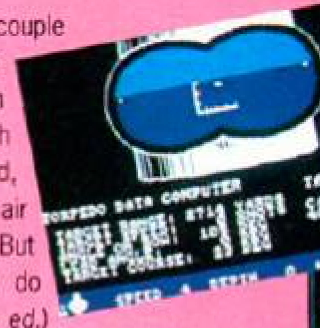
10) SOUTHERN BELLE
(HEWSON)

Popcornheads disagree, but we still reckon this train sim (*AA76* covertape) is totally excellent. **82%** (AA2)

Simulators

Whether it's a tank or a plane or a submarine, if you want to feel real, you need to get simulated (oo-er). ADAM PETERS straps himself into the armchair, grabs a joystick, and starts babbling on inanely...

When I was a nipper (a couple of years ago), everyone wanted to be a train driver. We all used to rush around the playground, waving our hands in the air and shouting "woo woo". But hey, everybody used to do that, right? (*No. I didn't – ed.*) (*Me neither – Maryanne.*) (*And neither did we. You must have hung around with some very strange people – the readers.*)





■ ***Ace of Aces* and *Silent Service* – two classic simulators of yesteryear.**

Ah, well... when I say 'we' used to rush around the playground, I mean that 'I' used to rush around the playground doing that. Everyone else played 'It'. But that's not the point. The point is that I never actually got an opportunity to drive a train, at least not until *Southern Belle* appeared on our covertape a couple of months ago.

That's the ace thing about simulators, they let you experience (to a certain extent) things you wouldn't otherwise get to try your hand at. Whether it's flying a plane, driving a tank or going on an intergalactic space mission, computer simulation is the way to have a go without having to bother with all the training nonsense, and with no worries about scuffing your shoes in the process.

Simulators first hit the arcades in the form of *Battle Zone*, which placed you at the controls of a tank, with lots of other tanks driving around waiting for you to shoot them. One of the first Atari VCS games was a tank sim called *Combat*. And then there was *3D Tank Attack*, which went down a storm on the early Sinclair machines.

Flight simulators dominate our top ten; there's six plane games, one helicopter game and a spaceship game. But these are a recent phenomenon. In the early days flight sims were quite rare, with *Flight Simulation* (the very first flight sim) and *Fighter Pilot* being two of the early ZX-81 affairs.

It took a few years for flight sims to take off (pun) in the arcades, because originally the technology just wasn't there. The early home computer games required a couple of dozen different keys to control all the different functions of the plane. Such controls weren't practical on an arcade cabinet.

Today, air combat simulators are one of the most common types of game in the arcades. The arrival of virtual reality (new games where you are placed right into the computer environment) signals the start of a new age in computer simulation.

Arcade simulators can now be produced that feel remarkably close to the real experience – flight simulators that feel exactly like sitting in the cockpit of a plane, and so on. Every year brings new advancements in the technology of computer simulation, and pretty soon it will be possible to experience any war, any vehicle, any adventure, all from the comfort of your local video arcade...

Elite
(FIREBIRD)

best simulator

There are games that you forget about within months, there are games that somehow lock themselves into the collective memory, and then there's this: *Elite* is a game that gave rise to a cult, with a massive fan club established amongst owners of the game. It's probably the most played CPC game of all time, and with every reason – it's excellent.



As a space pilot you travel the galaxy shooting down enemies. The screen view looks similar to the ancient arcadie *Star Wars*, but this arcade blasting forms only a small part of what is a very wide-ranging and tactical game.

As well as the combat/flight aspect, there is the trading element. You have to travel around the universe, dropping in on various planets to buy and sell stuff. The idea is to rise from the rank of Harmless (pleb) to the rank of Elite.

All in all, this is an excellently addictive game with enough tactical depth to attract even the most games-shy wirehead. Hurrah!

the buyers guide

art packages

It is blatantly obvious that (along with just about every other area of computing) the CPC is the best of the 8-bits when it comes to art. There are three screen modes, it has the largest palette and the best packages. It may not have the power of an Amiga, but at least the CPC packages are affordable, usable, reliable (and millions of other words all ending in 'able'). TIM BLACKBOND rounds up what is available...



ADVANCED OCP ART STUDIO

Rainbird Software • 128k tape or disk
£50 • Datel Electronics • 0782 744324

It is very difficult to summarise the capabilities of *OCP* - it's got the lot! For the price you get the actual program, a mouse, interface, mouse-mat and mouse-holder. Sounds good so far...

OCP is capable of all three screen modes, and offers all the usual stuff you'd expect from an art package, such as lines, boxes, etc. On top of this, there is a huge selection of window options (including re-scale), a fast fill routine (both solid and textured), three scales of magnification and colours can be protected, preventing them from being drawn over. Also, there is a built in font editor, pattern/brush editor and no less than twenty-five print sizes! There are well over fifty options, it would take too much space to even briefly list them!

No other package offers as much as *OCP*, it is quite rightly billed as the best art package on the CPC. Any self-respecting CPC artist should not be without it.

AMX ART

Advanced Memory Systems
64k tape or disk
No longer available commercially
Check out the small ads

Because *AMX Art* was given away with the AMX Mouse when it first came out over seven years ago, it does look a little primitive. Its best feature is the fact that it is very user-friendly. The combination of simple icons and pull-down menus means first-time users can get into it straight away, without having to wade through a huge manual.

The canvas very small, and you are limited to only two user-definable colours (the other two have to be black and white). *AMX Art* only offers the basic drawing tools and little else. Don't expect to find anything even remotely advanced.

All in all, *AMX Art* is good for kiddies to play with, but you should look elsewhere if you want a decent bit of power...

GPAINT

Public Domain • 64k tape or disc
Originally imported by Robot PD.

GPaint is the best of the two decent art packages in the public domain. Although it was imported from Germany you don't need an IQ of 6,000 to work out the main menu. A set of simple icons make each option easily recognisable, and the sub-menus have been translated. What else makes *GPaint* so good? Well, it is the only PD art package to work in all three screen modes, it has an undo function, the best text facility you'll find on any package (be it

Jargon-busting

BASIC ART OPTIONS: Throughout this guide, this term is used to describe the features that an art package would be useless without. Just the simple lines, boxes, circles and other 2D shapes.

BRUSHES: Small images that can be used to draw with, resulting in various different effects/patterned lines.

CANVAS: The area of the screen that you have to work on. Some packages let you use the full screen, whilst others provide a little less.

DUMP: Aside from the shower-room humour, it is a feature that sends a picture to the printer. Okay, okay, it's not that funny...

FILL: Simply filling a shape with a selected colour or pattern.

MODE: There are three screen modes on the CPC, each with varying palettes and resolutions. Mode 0, for example, offers low-res graphics but with the highest possible palette.

PALETTE: The range of colours a com-

commercial or otherwise), a huge magnify area, a built in pattern designer and print routine. *GPaint* also features image enlargement, reduction and rotation! Is that enough?

GPaint is excellent for the price, far better than other 'budget' art packages.

SMART II

Public Domain • 64k tape or disk
Originally featured on an AA cover cassette, now it's PD!

SmART II is the second, more advanced, version of the aptly named *SmART*, which appeared in the Type-Ins pages of *Amstrad Action* issues 29 and 31. The package itself isn't amazingly advanced, but it is still the second best PD art package available. There are lines, boxes, circles, ellipses, polygons with up to fifteen sides, two line thicknesses and a solid fill routine. *SmART II* does feature a very clever pointer control system. The longer you push the joystick in a direction, the more the pointer will speed up. With a little practice, near- perfect curves and arcs can be achieved with great ease. Because it is written in Basic, some of the options (eg fill) are a tad slow. This shouldn't put you off, though.

It lacks a print and text routine, which is a bit of a blow. It would, however, be possible use this and *GPaint* together in order to get the best of both 'worlds'.

ART THE EASY WAY

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£8.95 disk or £5.95 tape
Tel: 0703 402155
60 Hightown Towers, Warburton Road, Thornhill, Southampton, Hampshire SO2 6HH

Quite a snappy title, though not entirely true. *ATEW* has a wide range of options, but they are selected from a separate menu screen which stabs user-friendliness right in the back. It's a mode zero package that gives a simple zoom function, several fill patterns and a very basic text facility. It can also handle circles, rays, boxes, lines and a spray-can.

There is one snag - some of the options can be very slow indeed. Because it only works with keys, and you must memorise thirteen function keystrokes (if you don't want to constantly flick between the menu and canvas). It also annoying to have to start a function (eg a line) with COPY and finish it with the space bar. Fair enough, it is cheap, but a lot of patience will be needed to draw a really detailed picture.

So which is the best?

The answer to that is easy – *Advanced Art Studio*. Even after seeing the new packages, *OCP* remains the best value for money. It is the fastest, the easiest, the smoothest. In fact, *OCP* has more words ending with 'est' than all the other packages put together!

PICASSO

SD Microsystems • 64k Disk only.
£14.99 disk
PO Box 24, Holbeach, Lincs, PE12 7JF

Picasso is a relatively new package, and quite a good one too. There are several options, some of which are not found on other packages, all under a simple icon-driven menu. There are ten icons to choose from. These are: FILL, CURVE, MEMORY, DISC, INFO, TEXT, MISCELLANEOUS, PENS, ZOOM and EFFECTS. When an icon is selected, a sub-menu appears, giving a wider selection of options. Curve, for example, can plot the best arc between three points, cutting out the pain of doing them manually. There are four different fill techniques, one of which uses a "dual pen system to stimulate a sense of perspective". Sounds technical! Zoom is also very well implemented, allowing a 16 x 16 pixel area of screen to be edited with ease.



Although not as flexible as *Art Studio*, *Picasso* is very good. The fact that it is keyboard only makes it a tad inferior.

PICASSO

Scull SL Exclusive • 64k disk only
50p + blank disk
Graeme Chesser, 44 Echline Grove, S Queensferry, West Lothian EH30 9RU

Definitely not to be confused with the SD Microsystems package! Sadly, this is really quite awful! The biggest problem is the fact that the current screen is saved to disk every time an option is selected. This make the package painfully slow and practically unusable. There are very limited options, including a fast fill routine.

The only thing that makes this package buyable is the fact that there is a diskful of utilities with it (including a nice text editor). Over these utilities, the author, David Cantrell has proved that he can program in machine code. So why is *Picasso* so blitting slow? It could have been so much more...

Readers art



Here's a brief selection of some of the excellent pictures our readers have knocked up with their art packages. These drawings all from *Advanced OCP Art Studio*. See page 11 for more info and the latest pics.





puter has. In the case of the CPC, there are sixteen possible colours in mode 0, four in mode 1 and two in mode 2.

RESOLUTION: A measurement of the number of pixels a screen can display. The higher the resolution, the better the picture.

TEXTURED FILL: Floods a shape with a user-defined pattern, as opposed to solid colour.

UNDO: Not all packages have this, but it is most useful! Simply reverts the screen back to what it was before an option was selected – vital when a foul-up is made!

WIMP: Stands for 'Windows, Icons, Mouse and Pointers' and basically describes a menu system where a mouse is used to 'point' at the required options from menus. These can be simply selected, without using the keyboard. This system was originally developed to make packages appear more 'user-friendly' – and it works too!

WINDOWS: Allows the user to define a box around an area of screen and perform a variety of manipulations with it, such as flip, rotate, copy, etc.

ZOOM: Also known as 'Magnify'. Enlarges an area of screen allowing the user to pay more attention to close detail. Useful for fine-editing.

Next month in AA



The Incredible Hulk says: "don't go green with envy, dudes – get your own copy of the splendid August AA."

Day Trip to Boulogne



There are loads of CPC games on sale in France that never make it to these shores? So how can you get hold of them? A day trip to France sounds like a good idea. Adam and Rod hit the side streets and the hypermarkets of Boulogne in search of software – read their special report next month.



Summer Madness

The heat is starting to get to us... Look out for Doctor Fegg on programming, Professor Waring on all things technical, Captain Lawton on the availability of disk games, and Inmate Peters on the piracy con. Phew, what a scorcher!



Indiana Jones and the Fate of Atlantis



In *Action Test* next month we run our eyes over US Gold's new 3D exploration game. *Action Replay* takes a look at *Castle Master*, *Crack Down* and *Spellbound Dizzy*, amongst other things. And that's not all (but it's all we know at the moment).

A Lot to Learn

It's our last ever *Buyers' Guide* (sniff). We end it in style though, with a detailed look at al the educational software out there for your machine PLUS the Balrog's guide to all the best adventures, role-playing games and strategy games you can buy.



August issue on sale 16th July

Plus A brilliant *Tetris* clone on the covertape (ha ha, Gameboy dudes)

don't miss it!

AMSTRAD ACTION recently overtook *Freshwater Fish Weekly* in the best-sellers charts. Don't let a freshwater fisher beat you to the last copy of next month's *AA* at your local newsie. Hand this coupon to the dude behind the counter:

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back page competition

A simple memory test for you this month, readers. Who is this man, what is he dressed like this for, and what advice would you give him based on this photo? Jot your answers down on the back of a postcard or sealed-down toupee, and send it to: *Back Page Compo (AA82), Amstrad Action, Future Publishing, 30 Mon-mouth Street, Bath, Avon BA1 2BW.* Closing date: July 16th. Prize: £10. We'll let you know next month who won last month's caption competition.



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They have the Gookiest friends ever!
But watch out for Tully - he plays mean. Tully is the trecherous lawyer intent on stealing the family fortune and who has many a dirty trick up his sleeve.
They're the Spookiest family around!
But not now that they've disappeared! As Gomez you must find your loopy loved ones in their spooky mansion house.
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